SUMMER SESSION 1960

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The University Record Comprises:

The Reports of the President to the Board of Control, the Annual Catalog, the Schedules, the Bulletin of the Summer Session, and announcements of special courses of instruction.

These bulletins will be sent without charge to all persons who apply for them. The applicant should specifically state which bulletin or what information is desired. Address

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SUMMER SESSION 1960

June 1, Wednesday	Last day for filing application for 1960 summer session.
June 16, Thursday	Placement Tests for entering students.
June 17, 18, 20, Friday, Saturday Monday	Registration according to appointments assigned on receipt of preliminary application.
June 21, Tuesday, 7 a.m.	Classes begin. All registration fees increased $5.00 for persons completing registration on or after this date.
June 22, Wednesday, 5 p.m.	Last time for completing registration for the summer session. No one will be permitted to start registration after 3 p.m. on this date. Last time for adding courses or changing sections.
June 27, Monday, 12 Noon	Last time for making application at the Office of the Registrar for degree to be conferred at the end of the summer session.
July 4, Monday	Holiday. Classes suspended.
July 8, Friday	Last day of applying to take the foreign language examination for graduate students to be administered on July 16, 1960.
July 11, Monday, 5 p.m.	Last time for dropping courses without receiving a grade of E.
July 16, Saturday	Foreign language examination for graduate students, 18 Anderson Hall, 10-12 a.m.
July 22, Friday	Last day for candidates for degrees to be conferred at end of the summer session to complete correspondence courses.
July 25, Monday, 4 p.m.	Last time for candidates for Master's and Doctor's degrees to be conferred at the end of the summer session to file theses with the Dean of the Graduate School.
August 9, Tuesday, 7 a.m.	Final examination period begins. Fall semester registration begins for students enrolled in the summer session.

August 11, Thursday, 4 p.m.	Grades for all candidates for degrees to be conferred at the end of the summer session are due in the Office of the Registrar.
August 12, Friday	Faculty meetings, at times announced by the Deans, to pass upon candidates for degrees.
August 13, Saturday, 12 Noon	All grades for the summer session due in the Office of the Registrar.
August 13, Saturday, 8 p.m.	Summer Commencement Convocation.

ADMISSIONS

PRELIMINARY APPLICATION

All persons planning to attend the 1960 Summer Session, whether or not they have previously attended the University, must file the preliminary application form to be considered. The preliminary application may be obtained by writing to Office of the Registrar. No applicant can be assured that his admission to the 1960 Summer Session will be considered unless the preliminary application has been received at the Office of the Registrar on or before Wednesday, June 1, 1960. Upon receipt of the preliminary application, the applicant will be notified of the additional information (if any) that must be submitted. This additional information must be in the Office of the Registrar before registration can be authorized.

GENERAL STATEMENT

The Admission Requirements have been arrived at after a very careful study of the experiences of thousands of students over a long period of years. In every case they are minimum requirements that have evolved from studies of student performance at the University of Florida. These studies have had as a primary objective the identification of factors that would indicate a reasonable chance for successful completion of University work.

The Board of University Examiners is the agency responsible for administering all admissions to the University and its various components.

Students who are planning to enter the University of Florida for the first time will be considered for admission as follows:

Freshmen (those who have never attended any college)

1. If the student is entering the University from high school and has not attended college, he will be considered for admission to the University College. (See Section I)

Undergraduate Transfer Students

2. If the student is transferring to the University from another college or university and is presenting less than 64 semester hours of acceptable college credit for advanced standing, he will be considered for admission to the University College. (See Section II)

3. If the student is transferring to the University from another college or university and is presenting 64 semester hours or more of acceptable college credit as advanced standing toward a baccalaureate degree, he will be considered for admission to the Upper Division school or college of his choice providing his record indicates the completion of college work approximately equivalent to the comprehensive courses offered by the University of Florida in the areas of Social Sciences, the Physical Sciences, English, the Humanities and the Biological Sciences. (See Section III)

Graduate Students (candidates for Master's or Doctor's Degrees)

4. If the student wishes to pursue graduate studies and has been graduated from an accredited college or university, he will be considered for admission to the Graduate Division. (See Section IV)

Medical Students (See Section V)

Law Students (See Section VI)

ADMISSION TO THE UNIVERSITY COLLEGE

Section I Freshmen (Applicants who have never attended college)

A. Graduates of Florida High Schools:

1. Graduation from an accredited high school is required. No specific units are required but students expecting to apply for admission to the University are advised to emphasize in their high school programs the following subjects: English, social studies, mathematics, foreign languages and the natural sciences.

2. Minimum Standing on the Placement Tests of the Florida 12th Grade Testing Program. All applicants must take the placement tests before being admitted to the University. These are achievement tests in the fields of English, mathematics, social studies, and natural sciences. Attainments in these fields are possible without specific high school courses and are not guarranteed by the acquiring of certain high school units. Graduates of accredited Florida secondary schools who attain scores on the Florida State-Wide 12th Grade Testing Program tests which place them above the scores attained by the lowest 40% of the high school seniors of the state are academically eligible for admission. The University may re-test any applicant prior to admission to validate the scores attained in the State Program.

3. High school graduates who do not meet the above requirements may apply for special consideration. In each case the application will be considered on an individual basis, and any, or all, or any combination of the following types of evidence may be used in appraising the eligibility of the student for admission to the University: a personal interview, grades and rank in class, reference to the student's cumulative high school files, recommendation of the high school principal, and/or review of the results of tests already given or requested by the university admissions committee. After reviewing the evidence called for, the Board of University Examiners may grant or deny admission. In such cases the University will give considerable weight to results on such other tests as are recommended by the Board of Examiners.

4. Non-Florida students entering the University as first time freshmen must, in addition to meeting the requirements stated in 2, above, have graduated from an accredited high school with standing in the upper half of their graduating class. They must also present recommendations from the high school principal or school superintendent. Non-Florida applicants are urged to take the College Entrance Board Examinations, the results of which can be satisfactorily compared with the tests of the Florida Program so as to avoid the expense for coming to Gainesville to take the Florida Tests.

*Section II Transfer Students**

1. *Honorable Dismissal.* The student must be eligible to return to the institu-

tion last attended. Students who *for any reason* will not be allowed to return to the institution last attended cannot be considered for admission.

2. *Satisfactory record.* All transfer students must have made an average of C or higher on all work attempted at all institutions previously attended to be considered for admission.

3. Undergraduate transfer students shall be required to make a satisfactory score on a general ability test.

4. The University of Florida accepts on transfer only those courses completed at other institutions with grades of C or higher.

*The student who has matriculated at any college or university, regardless of the amount of time spent in attendance or credit earned, is regarded as a transfer student.

ADMISSION TO THE UPPER DIVISION

From the University College:

See elsewhere in this bulletin the various programs of the University College and the specific requirements listed under the curricula of the several colleges and schools.

Section III Transfer Students

1. *Honorable dismissal from the institutions previously attended.* An applicant for admission who for any reason is not eligible to return to the institution last attended cannot be considered for admission.

2. *An average of C or better.* The average grade for all work attempted at other institutions must be C or better. An average grade of C or better is required for graduation from the University of Florida, and one who has not maintained this average before coming to the University need not apply.

3. A minimum of 64 semester hours accepted as transfer credit (only those courses completed at other institutions with grades of C or higher) not more than four of which are in Military Science or Physical Education.

4. *Specific course requirements for the professional school of the applicant's choice.* The courses listed as required for admission to the Upper Division under the various curricula or acceptable substitutes must be offered as advanced standing to qualify the student for admission to the Upper Division. An applicant lacking some of these requirements may be permitted to enroll in the Upper Division and complete them without reducing the credits required in the Upper Division for a degree. In some cases the student may be required to enroll in the University College until these requirements are met.

5. Undergraduate transfer students shall be required to make a satisfactory score on a general ability test.

Section IV—ADMISSION TO THE GRADUATE DIVISION

(See also more detailed description in the Graduate Bulletin.)

Limitations of space and staff restrict the enrollment of graduate students. The records of applicants for graduate study are reviewed by the graduate selection committees of the various colleges and schools. In general no student will be considered for graduate study in any unit of the University who is a graduate of a non-accredited institution. Unqualified admission to the Graduate School for study toward all degrees except those in the College of Education and the College of Physical Education and Health is dependent upon presentation of an undergraduate record from an accredited college or curriculum with an average grade of "B" for the junior and senior years. All applicants are required to make a satisfactory score on the Graduate Record Examination before admission to the Graduate School can be granted.

Section V—ADMISSION TO THE COLLEGE OF MEDICINE

(Candidates for the M.D. degree are accepted for admission only in the Fall of each year. See also more detailed description in the section of the *Catalog* headed College of Medicine.)

Section VI—ADMISSION TO THE COLLEGE OF LAW

1. The beginning courses in Law are not offered in the Summer Session, hence students are not admitted in June unless they have completed satisfactorily at least one semester of work in an accredited law school.

2. A student wishing to transfer from another accredited law school who, at the time of beginning his study of law, qualified for admission to this College under the stated requirements for beginning students (other than the Law School Admission Test) and who has maintained a scholastic average of C or higher on all previous law school work undertaken, may apply for admission with advanced standing. Courses completed with a grade of C or higher in other accredited law schools will be accepted for credit up to but not exceeding a total of thirty hours.

3. Applicants for admission to the College of Law must have received a 4-year baccalaureate degree from a college or university of approved standing and a minimum score of 340 on the Law School Admission Test. If the Test is retaken a minimum score of 375 is required.

   Under existing legislation veterans who present honorable discharges which show not less than ninety consecutive days of active service in the U. S. Army, Air Force, Coast Guard, Navy or Marine Corps may enter after they have completed 94 hours of college work meeting the standards of the Association of American Law Schools. A veteran who has not received a degree must have made an average of C or higher in all work undertaken prior to entrance in the College of Law and a minimum score of 340 on the Law School Admission Test. If the Test is retaken a minimum

score of 375 is required. For information on admissions to the College of Law with advanced standing see the section of the catalog headed College of Law.

Section VII
ADMISSION REQUIREMENTS FOR SPECIAL STUDENTS

Special students may be admitted to the various schools and colleges of the Upper Division only by approval of the Board of University Examiners. Each case will be considered on an individual basis. Application for admission as a special student must include: (1) records of previous educational experience (high school or college transcripts); (2) a statement as to the type of studies to be pursued; (3) a brief statement of the reason or reasons for selecting a special program other than a regular one; (4) satisfactory evidence of ability to pursue these studies—for example, a student to enroll as a special student for some technical courses and who feels qualified to do so by reason of employment or other experience should submit a brief description of this experience; (5) satisfactory scores on such ability or achievement tests as may be prescribed in individual cases by the Board of Examiners.

Section VIII
UNCLASSIFIED STUDENTS

For the summer session only, the University of Florida provides a category for those persons who may wish to take college courses and:

a. transfer back to the institution they regularly attend in the winter session;

b. meet certain specific certification requirements;

Persons from the groups defined above may enroll as unclassified students provided there is evidence that they would meet admission requirements as regular students.

It is possible, if the student later files all necessary credentials and meets all the requirements for registration as a regular student, for credit earned during one term as an unclassified student to be counted toward a degree program at the University of Florida. Under no circumstances will credit for more than one term in an unclassified status be applied toward any degree conferred by the University. Thus, persons that have been registered as unclassified in a previous summer session should complete the requirements for admission as regular students before attending subsequent summer sessions if they anticipate completing work for a degree at the University of Florida.

Students entering the University after high school graduation and prior to college attendance at any other institution are never admitted as unclassified students and must qualify for admission as regular students as described above.

ADMISSION INFORMATION FOR VETERANS

In addition to the regular requirements for admission set forth in the preceding sections and the forms incident thereto required by the University of

Florida, any veteran who expects to enroll under provisions of any of the various federal laws governing education or rehabilitation training of veterans must be sure that he has cleared the necessary details with the Veterans Administration and has obtained the necessary documents from them.

The government benefits available under Public Laws 16 and 894 (Vocational Rehabilitation Acts) for veterans who received service connected disabilities are provided for only after review of each individual case by the Veterans Administration.

Many young men and women who have had active duty in the armed forces during the period which began with the Korean conflict are eligible for educational benefits under Public Law 550. Veterans in this group are urged to begin preliminary application with the Veterans Administration well in advance of the date they expect to enter the University. Under this law the veteran receives monthly payments which cover educational expenses (fees and books) as well as subsistence. As most of the fee and book expense must be paid at the beginning of the school term it is essential that the veteran be in a position to meet these expenses as they are due which will almost always be before any remittance has been received from the government. Veterans expecting to attend college under PL 550 are urged to familiarize themselves with the requirements and restrictions relative to the benefits of this act. Officials of the Veterans Administration should be consulted on any points not clear to the student or prospective student. It is especially important that the student understand the procedures that must be followed to obtain Veterans Administration approval of original choice or any change of educational objective.

All veterans who believe they are entitled to educational benefits are urged to contact the appropriate Veterans Administration office in order that the decision may be made in their individual case. Veterans who at the time of registration do not have the necessary papers showing clear entitlement to government benefits are required to pay their own fees. If the proper clearances are subsequently presented to the Office of the Registrar, authorization for refund of fees and expenses appropriate in the individual case will be issued.

EXPENSES

General

Students should bring sufficient funds other than personal checks to meet their immediate needs. Personal checks will be accepted for the exact amount of fees. Other personal checks may be deposited with the University for collection.

Funds may be placed in a depository maintained by the University Cashier in Room 1, Administration Building. A fee of $.75 per summer session is charged for servicing an account. Withdrawals may be made upon request and presentation of passbook. Any University fee or deposit may be paid from such account.

REGISTRATION AND INSTRUCTIONAL FEES

The following fees are payable at the time of registration. Registration is incomplete until all fees are paid.

	Per Session	
	Florida	*Non-Florida*
THREE WEEKS TERM	24.00	59.00
SIX WEEKS TERM	42.00	112.00
EIGHT WEEKS TERM	54.00	154.00
THESIS. Students enrolled for thesis only (not to exceed four semester credit hours) (such students are entitled neither to student activity nor infirmary privileges)	24.00	24.00
EIGHT WEEKS TERM, State Forest Ranger School	55.00	175.00
Registration fees paid after the conclusion of the regular registration period are increased	5.00	5.00
This increase cannot be waived and is not refundable		

NOTE: A student may not register for the eight weeks term and any other term concurrently.

Other Instructional Fees

Department of Music

Fees for applied music lessons, instrument rental and the rental of practice rooms are payable at the time of registration. No refund will be made if lessons are missed. Arrangements may be made in the departmental office to make up lessons missed because of serious illness.

Applied music courses are offered only during the eight weeks term.

Applied Music Fee	30.00
Practice Room Rental	5.00
Instrument Rental	5.00

APPLICATION FEE

Each application for admission to the University must be accompanied by an application fee of $5.00. This fee is non-refundable. Further instructions will be found in the Admissions section of this catalog.

SPECIAL FEES

Application Fee for Comprehensive Examination. A non-refundable fee of $1.00 is payable on the day of application for a comprehensive examination in one of the basic courses of the University College program. Applications are necessary only when the student is not currently registered in the course concerned. Forms and instructions may be secured from the Registrar. Fees are payable to the University Cashier.

Audit Fee. With the approval of the dean of the college administering the course and the written consent of the instructor, a course may be audited upon payment of a fee of $24.00 per course. Auditor's permit forms may be obtained in the Office of the Registrar. Fees are payable to the University Cashier.

Graduate Record Examinations. The Aptitude Test of the Graduate Record Examination is required for admission to the Graduate School. A fee of $8.00 covers the cost of this examination. Students who take one of the Advanced Tests of the Graduate Record Examination in combination with the Aptitude Test pay a fee of $14.00. These fees are payable to The Educational Testing Service, Princeton, New Jersey. For additional information see the Graduate School catalog.

Graduation Fee

Bachelor's Degree	$ 10.00
Master's, Specialist's, or Doctor's	20.00

Candidates for degrees must make application for the degree in accordance with the date set forth in the University Calendar. The graduation fee is payable at the time of application.

Transcript Fee. A student is furnished a first copy of his record without charge (regardless of the amount of work completed). Subsequent copies are charged for at the rate of $1.00 each, except when the order is for more than one copy. There is a charge of $1.00 for the first copy and $.50 for each additional copy on the same order. University transcripts may be obtained from the Registrar's Office.

REFUND OF FEES

A refund of fees will be made under certain conditions, upon presentation to the University Cashier of an authorization issued by the Registrar's Office.

A full refund of tuition, registration and instructional fees will be made if the student's registration is cancelled on or before the first day of classes in any summer session.

A full refund of tuition, registration and instructional fees less a fixed charge of $3.00 in a summer session will be made if the student withdraws or if his registration is cancelled by the University after the first day of classes but on or before the final day of registration as shown in the University calendar.

A refund of fifty per cent of tuition, registration, and instructional fees will be made if a student withdraws or if his registration is cancelled by the University after the conclusion of the registration period but on or before the day which marks the end of the first week of classes.

Deductions from refunds will be made for unpaid accounts due the University.

PAST DUE STUDENT ACCOUNTS

All student accounts are due and payable at the office of the University Cashier at the time such charges are incurred.

A student who owes any money to the University of Florida, other than a non-delinquent student loan, shall not be permitted to re-register, to receive credit for work completed, or to receive a transcript of grades until satisfactory arrangements for the liquidation of his indebtedness have been made with the University Cashier.

DEPOSITS

HOUSING RESERVATION. Students wishing to apply for space in University housing facilities must forward to the Director of Housing a reservation deposit of $10.00 at the time such application is made.

STUDENT LIFE—SERVICES, FACILITIES, ACTIVITIES, REGULATIONS

OFFICE OF THE DEAN OF STUDENT PERSONNEL

The Dean of Student Personnel coordinates the counseling and service activities which are available to aid the student in solving personal and educational problems and to help him in selecting a balanced program of social and recreational activities.

OFFICE OF THE DEAN OF MEN

The Dean of Men, as a counselor to men students, is interested in the total life of the student, including his academic, financial, social and recreational activities. In cooperation with the Dean of Women, his office serves as a clearing house for all non-classroom activities. The Dean of Men serves as an adviser to student self-government so that these activities may provide training in citizenship and leadership. He cooperates with the Director of Housing in providing counseling for men who live in University housing facilities.

OFFICE OF THE DEAN OF WOMEN

The Dean of Women has broad responsibilities for the welfare of women students. She serves as a counselor to students on a variety of problems and interests including personal, academic, financial and social.

In cooperation with the Dean of Men and the Adviser to Student Organizations, she serves as an adviser to student government and other student organizations.

The Dean of Women in cooperation with the Director of Housing, acts in an administrative, supervisory, and counseling capacity with relation to the University residence halls and women's fraternity houses.

OFFICE OF THE DIRECTOR OF HOUSING

The Director of Housing, in cooperation with the Deans of Men and Women, administers, supervises, and coordinates all programs and operations in the Residence Halls, the Apartment Villages, and an Off-Campus office. See section on "Housing" for details.

OFFICE OF THE ADVISER TO FOREIGN STUDENTS

The Adviser to Foreign Students is the coordinator of arrangements for all alien students at the University. His office cooperates with other University agencies in handling admissions and financial aids for students from abroad. The office is primarily responsible for the reception and orientation of new foreign students and for all of the University's relations with the U. S. Immigration Service. The Adviser to Foreign Students cooperates with other officials and agencies of the University in providing necessary counseling for foreign students, on personal, academic, financial, language or social problems. Assistance in an advisory capacity is provided for persons interested in study or travel abroad and for individuals and organizations concerned with international understanding and intercultural exchange.

ENGLISH LANGUAGE INSTITUTE FOR FOREIGN STUDENTS

The Department of Speech conducts each summer an institute which is designed to enable foreign students, for whom English is a second language, to participate successfully in college courses conducted in English and to adjust to an American-English speaking community. The Institute provides nine weeks intensive instruction in speaking, understanding, writing and reading English. The classes meet six hours daily.

Enrollment is limited and preference is given to students who plan to continue study at the University of Florida. This is a special program which does not carry University credit.

Address inquiries to the Adviser to Foreign Students.

STUDENT ORGANIZATIONS OFFICE

The student organizations office is interested in the activities of all organized student groups on the campus. It maintains complete records of these groups, including date of recognition, officers, constitution, etc. This office is also the authorization agency for social activities of all student organizations and provides information regarding regulations for such activities.

The Assistant Dean of Men is in charge of the student organizations office and should be contacted regarding the formation and recognition of new student organizations and regarding any problems which may arise concerning the operation of student organizations.

UNIVERSITY PLACEMENT SERVICE

University Placement Service is the core of the University placement system. It serves as the coordinating agency for all placement activity on campus by working in cooperation with the University departments, schools and colleges. At the present stage of development, the U.P.S. supplements the placement activities which are carried on by various colleges and offers direct assistance to graduating students of colleges who do not have their own placement activity.

The primary objective of the placement system is to assist students in the problem of finding suitable employment following graduation. This is done by

supplying students with vocational information, information concerning the opportunities, and also assisting them in the preparation of credentials for presentation to prospective employers.

Representatives from business, industry, and government who visit the campus or write this office are given every opportunity to engage qualified University of Florida graduates.

OFFICE OF STUDENT PERSONNEL RECORDS

Using various sources, the Office of Student Personnel Records collects and integrates information concerning social and scholastic activities of each student. It makes this information available to qualified counselors who aid the student in making educational, social, psychological, and vocational adjustment. The keeping of personnel records is an effort in the understanding of, and service to, the individual student as he has contact not only with the classroom, but also with all phases of his university life.

STUDENT EMPLOYMENT

Every effort is made to aid qualified students in obtaining part-time employment. Opportunities are limited; consequently the number of part-time jobs available does not approach the number of applicants seeking these jobs. Every effort is made to place students in work that utilizes their training and experience.

Each student who is employed by the University must have an honor point average of C for the semester or term immediately preceding his employment. The average rate of pay per hour is between 75 cents and $1.25. Average monthly earnings are about $50.

Student employment is directed by the Committee on Student Aid, Scholarships and Awards, with the Assistant Dean of Men administering the program. Students who desire to work on campus should apply as soon as possible after they arrive on campus. Application for work, however, may be filed at any time.

Inquiries should be addressed to:

Assistant Dean of Men

University of Florida

Gainesville, Florida

SCHOLARSHIPS AND LOAN FUNDS

For information on scholarships and loans at the University of Florida, students should refer to the Dean of Student Personnel, who is chairman of the Committee on Student Aid, Scholarships and Awards, and to the special bulletin on Scholarships, Loan Funds and Student Employment for details on the various types of aid.

HOUSING

GENERAL INFORMATION

Each student must make personal arrangement for his housing either by (1) applying to the Office of the Director of Housing for assignment to the University Housing Facilities or, (2) in the case of an upperclass man who wishes to do so, obtaining an accommodation in private housing or in his fraternity house. (See Private Rooming Houses and Fraternities and Sororities).

All inquiries concerning housing applications, deposits, or rent payments in University Housing Facilities should be addressed to the Director of Housing, University of Florida, Gainesville. Checks or money orders for room deposits or rent payments should be made payable to the University of Florida and mailed to the Office of the Business Manager, Cashier, together with the application or rent invoice. Cash should NOT be sent through the mail.

An application for married housing may be filed at any time. An application for residence hall space may be filed at any time *after application for admission to the University*. Prospective students are urged to apply as early as possible, since assignments are made during the early spring.

A deposit payment of ten dollars must accompany the application for housing. Each applicant is given advance notice of exact assignment and deadline date for rent payment, if possible. Each applicant should read carefully the terms and conditions covering housing assignments as stated on the back of the application form and on the notification of assignment.

Roommate requests are honored wherever possible, provided the individuals wishing to room together submit their applications and pay room deposits at the same date, clearly indicate on their respective applications their desire to room together, and are within similar academic classifications. A large number of selected foreign students are assigned as roommates with American students who are interested in foreign languages, trade, and international relations. It is the University's policy to encourage American and foreign students to room together, and any student interested in the program should indicate this on his application.

RESIDENCE REGULATIONS

All freshmen men (less than 28 hours of academic credit with the University of Florida Registrar) and all undergraduate women, with the exception of those whose residence is Gainesville or vicinity, are required to live in University Housing Facilities as long as space is available. Undergraduate women students, excepting freshmen, may live in sorority houses.

HOUSING ADMINISTRATION AND SERVICES

Carefully selected and trained personnel are in charge of each area. Students with personal problems or questions concerning procedure or policy are aided by Resident Counselors, Residents Assistants, and Section Advisors.

The rates quoted are subject to change. All facilities are equipped with basic furnishings of beds, mattresses, dressers, desks, and chairs. Residents are

encouraged to obtain their own drapes, pictures, bedspreads, rugs, and lamps after arrival at the University.

Students assigned to University Residence Halls should not purchase or bring any basic linens. Basic linen service in furnished at a cost of $4.00 per student for the Summer Session and includes 2 sheets, 1 pillow case, and 3 towels per week. The charge will appear on the room assignment and is due and payable with the rent. Additional linens, blankets, pillows and desk lamps may be obtained on a rental basis for a nominal fee.

Heavy luggage may be sent ahead, prepaid, addressed in the student's name and showing his assigned room number. Such shipments will be held until called for by the student. The University assumes no responsibility beyond the exercise of reasonable care for any shipment so received.

RESIDENCE HALLS FOR SINGLE STUDENTS

Reid and Yulee Halls

These halls of modern design and of brick, concrete, and steel construction are normally reserved for undergraduate women students. Features include: office-to-room intercommunication system; post-office boxes for each room in building lobbies; large lounge for each building; study lounge on each upper floor; large recreation rooms; laundry and other self-service facilities. Double and single rooms only, with the number of single rooms limited. Community bath facilities on each floor. Hot water-system thermostatically controlled for each building. Fluorescent lighting. Rent rates per 8-weeks Summer Session (subject to change): Single room $48.00 per student; double room $40.00 per student; double room assigned as single $60.00 per student.

Rawlings Hall

Similar in construction and facilities to those above. To be assigned to Graduate women students only for Summer Session. Rent rates per 8-weeks summer session (subject to change): double room $40.00 per student; double room assigned as single, $60.00 per student.

Buckman, Thomas, Sledd, and Fletcher Halls

The four halls of modern brick, concrete, and steel construction are normally reserved for men students. Each hall is divided into separate sections with accommodations for from 30 to 48 students per section. All rooms have lavatories, and there is a community bath on each floor in each section. There are lounges, recreation rooms, and laundry facilities in the area. Room types: two-room suites for two, double rooms for two or three students, and single rooms. Summer Session rent rates range from $33.00 to $40.00 per student per 8-weeks Summer Session. (Murphree Hall will not be available for use by single students during the Summer Session.)

FACILITIES FOR MARRIED COUPLES AND FOR WOMEN WITH CHILDREN

Flavet Apartment Villages

These Villages, located on-campus, have been provided through the public Housing Authority. Assignments are currently being offered only to married

students. Currently, there is a waiting period of about 6 months between the date of application and the date an assignment can be made. Flavet I contains 22 buildings of one-story, temporary construction, divided into 83 apartment units of one, two, or three bedrooms. Flavet II, similar to Flavet I in construction, contains 20 buildings divided into 76 apartment units, of one, two, or three bedrooms. Flavet III contains 52 buildings of two-story, temporary construction, divided into 428 apartment units of one or two bedrooms. All apartments are equipped with basic furniture requirements, but residents must furnish their own linens, rugs, kitchenware, etc. Cooking and heating are by gas, metered to the individual apartments. Electricity consumption in excess of the basic minimum is paid on a monthly basis on meter readings. Rent rates per month (including basic electricity) are: one-bedroom apartment, $26.75; two-bedroom apartment, $29.50; three-bedroom apartment, $32.25.

Applications may be filed at any time and should be sent as soon as possible.

Corry and Schucht Memorial Villages

These Villages, located on-campus, contain modern two-story buildings constructed of brick, concrete, and wood, divided into 296 one, two, and three bedroom apartment units. Assignments are offered to married students. All apartments are equipped with basic furniture requirements for the living room, dinette, kitchen, and one bedroom. Residents must furnish the extra bedrooms and their own linen, rugs, kitchenware, etc. Cooking and heating is by gas, metered to individual apartments. Electricity is paid on a monthly basis on meter readings. Water is paid at a flat rate of $1.50 per month. Rent rates per month are: one-bedroom apartment, $54.00; two-bedroom apartment, $57.00; three-bedroom apartment, $60.00.

Applications may be filed at any time and should be sent as soon as possible.

Sections of Murphree Hall will be available for assignment to couples and to women with children. The accommodations consist of two room suites (study room and bedroom). All suites have lavatories, and there is a community bath with shower and toilet facilities on each floor in each section. Cooking or preparation of food is not permitted. Summer Session rates are $60.00 per suite per eight weeks term.

OFF-CAMPUS HOUSING

Private homes and privately operated rooming houses and apartments provide many accommodations for students.

Off-campus listings are maintained in the Off-Campus Section but are not compiled for mailing since availability changes constantly and a mutually satisfactory rental arrangement can normally be made by the student *only* after personal inspection of facilities and conference with the householder. Students seeking off-campus housing should come to Gainesville well before the school period to confer with the Off-Campus Section about accommodations. Advance appointments for conferences may be made.

Arrangements for the September semester should be completed between the middle of June and the middle of August, for the February semester, during

January, and for the Summer Session between the middle of April and the end of May.

Any freshman man student or single undergraduate woman student who wishes to live off-campus must obtain advance clearance in writing from the Housing Division. Each single, undergraduate woman student under 21 years of age, who may be authorized to live off-campus, must file with the Office of the Dean of Women a form signed by her parents or guardians giving their approval of her living at a specific address. Such blanks are available from the Office of the Dean of Women.

COOPERATIVE LIVING ORGANIZATION

The Cooperative Living Organization, incorporated in 1940, is operated by and for students with limited means for attending college. The Organization is located one block from the University campus, and has five residence buildings with a total capacity of over seventy members. The affairs of the Organization are administered by a Board of Directors, elected annually from the membership.

Among the qualifications for membership are scholastic ability and reference of good character. Application for membership should be made to the Vice President at 117 N.W. 15th Street, Gainesville.

FRATERNITIES AND SORORITIES

Most national fraternity and sorority chapters maintain their own houses adjacent to the University campus. Freshman women are not permitted to live in sorority houses. Special regulations apply to freshman men living in their fraternity houses. University student regulations are in effect for all sorority and fraternity houses.

GENERAL INFORMATION

LECTURES, PLAYS AND EXHIBITIONS

The University presents outstanding lectures as part of the general educational and cultural life of the campus. The speakers are selected with a view to offering to the University community stimulating presentations in the different areas of learning.

During the Summer Session, under the direction of the Department of Speech, full length plays, experimental one-act plays, and interpretative reading programs are presented. The University provides facilities for high grade performances under competent direction.

Exhibitions of contemporary work in the arts are brought to the campus under the sponsorship of the University Center of the Arts. Such exhibitions provide an opportunity to study examples of the best contemporary work in painting, industrial design, furniture, crafts, community planning, architecture, and the other arts.

RELIGIOUS AND SOCIAL LIFE

The leading religious denominations have attractive places of worship and students are welcome at every service. Students interested in the study of religion and in preparing themselves for religious leadership may take courses offered by the Department of Religion. Vesper services are conducted weekly on the campus lawn or in the Florida Union.

UNIVERSITY OF FLORIDA LIBRARIES SERVICES

The University Libraries, consisting of the General Library and 11 college, school and departmental libraries, contain more than 827,000 volumes and receive currently approximately 8600 serials.

The larger part of the library holdings are kept in the General Library building where four reading rooms offer seating space for 1200 readers. Located on the first floor is the University College Reading Room which has on open shelves some 8000 volumes useful to students in the first two years of college. The Humanities Reading Room and the Social Sciences Reading Room, on the second floor, are designed primarily as centers of library activity for the upperclassmen in the humanistic and the social studies. Around the walls on open shelves in each of these rooms are approximately 15,000 volumes and current issues of learned journals. On the third floor is the Science Reading Room with books and complete sets of journals in psychology, general science, mathematics, biology, geology and geography. The Special Collections Department of the Library is comprised of the Marjorie Kinnan Rawlings Collection, the Collection of Creative Writings, the Dance and Music Archives, and the rare books of the Library. Additional services in the General Library are the Browsing Room for recreational reading, the Map Room, music rooms, seminar rooms, and carrels and study cubicles for faculty members and graduate students.

The Library collection is particularly strong in Floridiana with research centered in the P. K. Yonge Library of Florida History, located on the first floor of the General Library building. Special emphasis has also been placed upon strengthening the holdings for the Caribbean area.

Libraries for Agriculture, Architecture and Fine Arts, Chemistry-Pharmacy, Education, Engineering, Forestry, Journalism and Communications, Law, Nursing-Medicine, and Physical Education are located in or near buildings housing the corresponding instructional units. The Library serving the extension activities of the University is located in the Seagle Building. The P. K. Yonge Laboratory School Library serves the Laboratory School.

STUDENT HEALTH SERVICE

Applicants for admission to the University are furnished a medical history and physical examination form by the Registrar's Office. The history is completed by the applicant before going to his physician for the physical examination. The physical examination must be performed and completed by a licensed Doctor of Medicine (M.D.) and mailed by the doctor directly to the Director, Student Health Department, University of Florida, Gainesville, Florida, using the envelope supplied for that purpose. The medical history and physical ex-

amination must be reviewed by a University Physician before the applicant is cleared for registration in the University. Therefore, it is imperative that the University Physician receive this medical history at least two weeks prior to entrance. The type of physical education for which the applicant is qualified, and the physical eligibility of male students for R.O.T.C. training, is determined on the basis of this pre-entrance examination, after conference and possible further examinations of those with reported physical defects. In cases where a defect is thought to exist, the student is requested to forward a letter from the family physician giving full details of diagnosis and treatment, in order that these may be incorporated in the record for later reference if treatment should be required, and to further determine eligibility for physical education and R.O.T.C.

The Student Health Department strives to prevent students with communicable diseases from entering the University. An x-ray unit from the State Health Department will be available for chest x-rays of students, as well as faculty and staff, during registration. Students must have been successfully vaccinated against smallpox within the past 5 years. No exceptions are made to this ruling. Students who have not been vaccinated within 5 years should receive this vaccination from their family physician at some time prior to entering the University, since the immunization limits participation in swimming and other required activities for a number of days after being applied. It is also advised that all students be immunized for typhoid fever and tetanus prior to arrival in Gainesville.

The University maintains the Student Health Department in the Infirmary building on the campus for the protection and medical care of the students in residence. The Outpatient Clinic is open during the day from 8:00 A.M. to 12:00 Midnight, to provide all students in need of medical care with consultation and treatment. Between the hours of 12:00 Midnight and 8:00 A.M., the building is locked, but students who are in need of medical care are seen by the Nursing Staff stationed on the hospital floors of the building. A call-bell at the entrance will summon a Nurse to the Clinic. A physician is on 24-hour call to care for emergencies too severe to be cared for by the Nursing Staff.

The Hospital, consisting of 65 beds, provides the students in need of hospitalization with twenty-four hour general nursing care. Patients entering the hospital are under constant observation by a University Physician. Students are urged to report to the Infirmary at the first sign of illness. In all cases where the illness is thought to be of more than average severity, parents will be notified by collect telephone by the Physician in charge of the case.

The Student Health Department gives as complete a diagnostic, treatment, and public health program as possible within the limitations of its personnel and equipment. It is staffed and organized for treating the acute illness which commonly occur while the student is in residence at the University. Facilities at the University Infirmary include the services of a competent medical staff, a psychiatrist, x-ray and clinical laboratories, and pharmacy.

There are no facilities for dental work or eye refractions in the Student Health Department and, therefore, students are urged to have defects of vision and teeth corrected before coming to the University.

Some minor surgery is performed only with the consent of the student and/or parent or guardian, and at their expense. Whenever an emergency is imperative, the student shall be referred to a competent surgeon and transferred to the

Alachual General Hospital in Gainesville, or the J. Hillis Miller Health Center, which are fully approved for surgery by the American College of Surgeons. Students receiving severe, multiple or compound fractures will be handled in the same manner as students in need of emergency surgery.

Competent physicians and surgeons in Gainesville, and at the J. Hillis Miller Health Center cooperate readily with the Student Health Department in consultations. Whenever a student is found to be in need of a consultant, the university physician will arrange for such a consultation. Local physicians are also available for medical service to students at their places of residence, at the student's expense.

Health service is available only to those students currently enrolled in the University who have paid the student health fee. In the case of married students, who are unacquainted with local physicians, the Student Health Department will be glad to recommend well qualified physicians to attend their families.

The Health Fee does not include surgery, consultation, or special duty nursing. These must be paid by the patient. Laboratory work done at the Infirmary is free of charge but any work that has to be referred else-where is the responsibility of the patient. Diagnostic x-ray service is offered at a very nominal cost. All x-rays are interpreted by a qualified Radiologist. A charge of $2.20 per day is made for students admitted to the Infirmary as inpatients.

The University is not responsible for the medical care of students during vacations, but, in certain instances, it may make special arrangements for the continued care of students who were hospitalized before the vacation period.

During epidemics, the facilities of the Student Health Department may be so overtaxed that the care of all ill students at the Infirmary will be impossible. In such an emergency every effort will be made to provide for the care of students outside the Infirmary, but the Student Health Department will not assume payment for services rendered by outside physicians or other hospitals.

ANNOUNCEMENTS

The *Orange and Blue Bulletin* is the official bulletin of the Summer Session. This mimeographed sheet, published every other day during the Summer Session and posted on all bulletin boards, carries notices of changes in schedule, meetings, and other pertinent information. Announcements made in the General Assembly; notices on the bulletin boards in Florida Union, Peabody Hall, and Anderson Hall; and news items in the *Summer Gator* serve to keep the Summer Session students informed concerning student activities.

ORGANIZATIONS

PHI KAPPA PHI

A chapter of the Honor Society of Phi Kappa Phi was established at the University in 1912. To be eligible for consideration for membership, a student must previously have earned at the University at least thirty semester hours of credit, must have been guilty of no serious breach of discipline, and must stand among the upper tenth of all candidates for degrees in his college. Eligibility for consideration for membership is assured every student within an honor

point average of 3.30 or higher, but a student who comes within the quota of his college may be considered if his honor point average is not below 3.00. Graduate students meeting certain prescribed requirements are also considered for membership.

GAMMA SIGMA DELTA

A chapter of Gamma Sigma Delta, the Honor Society for Agriculture, was established at the University of Florida in 1955. The objectives of the Society are to encourage high standards of scholarship in all branches of Agricultural Science and Education and a high degree of excellence in the practice of agricultural pursuits, by the election to membership of those students in the graduating and post-graduate classes in the Agricultural College who have shown exceptional ability during their undergraduate or graduate work, and of those alumni and faculty members who have rendered signal service to the cause of agricultural development. Minimum requirements for membership for graduating Seniors are, in general, 3.00 average, at least one year's residence at time of consideration for election, and high moral character. Graduate students must have shown ability to do satisfactory work in advanced study in agriculture, and must have completed at least one semester or its equivalent in the Graduate School at the University of Florida.

KAPPA DELTA PI

The Upsilon Chapter of Kappa Delta Pi was established at the University of Florida in 1923. The purpose of the society is to recognize and promote merit in educational study and service. Both men and women are admitted to membership. Members are chosen from juniors, seniors, graduate students, faculty, and alumni. Requirements for membership are, in general, as follows: A scholastic average in the upper quintile; evidence of abiding interest in educational service; a good professional attitude; and good personal-social characteristics. During the Summer Session the chapter holds several meetings.

PHI BETA KAPPA

Phi Beta Kappa was established on the campus of the University of Florida in 1938. It is the oldest national fraternity, being founded in 1776. In conformity with the national objectives of the society, the University of Florida chapter restricts election to the College of Arts and Sciences. No more than 15 per cent of the senior class graduating in each semester, including the graduating class of the Summer Session is eligible for election.

In addition to conferring membership upon qualified seniors in the College of Arts and Sciences, the society seeks, by means of an Award in Recognition of Creative Achievement, to honor each year not more than one graduating senior from all the colleges on the campus, who, irrespective of his honor point average, has distinguished himself throughout his undergraduate career in such fields of activity as creative writing, dramatics, and forensics, the fine arts, or any other liberal discipline, and has revealed a decided talent, a persistent interest, and a prospect of mature achievement in later life.

PHI DELTA KAPPA

Beta Xi chapter of Phi Delta Kappa, national professional education fraternity for men, was installed at the University of Florida early in 1949. Dedicated to ideals of research, service and leadership, this organization is one of the oldest and largest professional fraternities. Men are chosen for Phi Delta Kappa on the basis of scholarship, leadership, potentiality, and qualities of personality considered as promising for the development of public education in the state and in the nation.

RECREATION

THE FLORIDA UNION

The Florida Union, the official center of student activities, is financed primarily be student activities fees. Some of the facilities and services offered by the Union include music listening rooms, a craft and hobby shop, photographic darkrooms, browsing library, game room, and lounges where students may spend leisure hours. Fifteen guest rooms are available for guests of students and University personnel. The Union also provides an embosograf poster service, information desk, Western Union service, auditorium, and meeting rooms for student activity groups. Offices for the President of the Student Body, the Executive Council, Honor Court, and all student publications are located in the Florida Union.

The Florida Union Board for student activities, composed of students interested in planning student activities, sponsors a variety of social programs for the student body. Some of the regular activities sponsored by the Union Board are bridge tournaments, dancing classes, coffee hours, movies, outings, and dances. Other special activities are sponsored by the Union Board during the year. The committees of this board are open to all interested students.

The University's Camp Wauberg operated by the Florida Union is a recreational area for the exclusive use of University personnel. This area is located nine miles south of the campus. Facilities include a large picnic area, a recreational building, a bath house, and a play ground area for volley ball, horseshoes, badminton, softball. Camp Wauburg has swimming, boating, and fishing facilities.

INTRAMURAL AND RECREATIONAL ATHLETICS

A broad recreational program of athletics will be conducted for the students and faculty by the College of Physical Education and Health during the Summer Session.

A Summer Session all-campus league will be organized with competition in softball, tennis (singles and mixed doubles), shuffleboard (singles and mixed doubles), swimming, volleyball, table tennis, and handball tournaments, appropriate awards will be made to winning teams and individuals in all sports.

A sports' clinic will be conducted prior to the tennis, volleyball, and handball tournaments. Students have the opportunity to learn skills in recreational sports through the Department of Required Physical Education. Further information may be obtained at Room 134 Florida Gymnasium.

The athletic and physical educational facilities, including the use of the swimming pool and equipment room service, will be available to all *bona fide* University students. Use of these services and facilities will also be extended to students' families, faculty, employees, and their immediate families, upon payment of a fee. The *Summer Gator*, the *Orange and Blue Bulletin*, and the *Florida Intramural Bulletin* will carry current notices and announcements about various phases of the program.

SWIMMING POOL

The swimming pool will be open daily during the Summer Session. Dressing facilities for women are located in the Women's Gymnasium. The facilities for men are located in Florida Gymnasium.

THE DEPARTMENT OF MUSIC

The Department of Music offers opportunities during the Summer Session for those students interested in participating in bands, orchestras and choral groups.

RELIGIOUS AND SOCIAL LIFE

The leading religious denominations have attractive places of worship and students are welcome at every service. Students interested in the study of religion and in preparing themselves for religious leadership may take courses offered by the Department of Religion.

ACADEMIC REGULATIONS

STUDENT RESPONSIBILITY

Each student must assume full responsibility for registering for the proper courses and for fulfilling all requirements for his degree. Several days before registration students should confer with the deans of their respective colleges regarding choice of courses. Juniors and seniors should confer with the heads of the departments in which they expect to earn majors. Candidates for graduation must file, in the office of the Registrar, formal application for a degree and must pay the diploma fee very early in the term in which they expect to receive the degree. The official calendar shows the latest day on which this can be done.

Courses can be dropped or changed only with the approval of the dean of the college in which the student is registered and by presentation of the cards authorizing the change at the office of the Registrar.

CREDITS

The term credit as used in this bulletin in reference to courses is equal to one semester hour.

RESIDENCE REQUIREMENTS

1. The minimum residence requirement for the baccalaureate degree is two semesters, or one semester and three six-weeks summer terms, or one semester and two eight-week summer terms, or one semester and two nine-week summer terms, or five six-week summer terms, or four eight-week summer terms or four nine-week summer terms. New students offering advanced standing must meet this requirement after entrance to the University. Students who break their residence at the University by attending another institution for credit toward the degree must meet this requirement after re-entering the University.

2. Students are required to complete the last thirty credit hours (except in the College of Law) applied toward the baccalaureate degree during regular residence in the respective college from which they expect to be graduated. Exception to this regulation may be made only upon written petition approved by the faculty of the college concerned, but in no case may the amount of extension work permitted exceed more than twelve of the last thirty-six hours required for a baccalaureate degree.

3. For the degree of Bachelor of Laws, a student must complete at least 96 weeks of study in residence in an accredited law school of which at least 62 must have been in residence in the College of Law, University of Florida. The last 28 credits and the last 30 weeks of study must be in residence in this College unless other arrangements are made in advance by written petition approved by the faculty of the College of Law. (In the case of a student admitted prior to September, 1953, completion of at least 90 weeks of study in residence at an accredited law school is required of which at least 56 weeks must have been in residence at this College.)

4. For residence requirements for the various graduate degrees see the Graduate School section of this bulletin.

AMOUNT OF EXTENSION WORK PERMITTED

No student will be allowed to take more than one-fourth of the credits toward a degree by correspondence study and extension class work. Extension work to apply on the last thirty hours is authorized only by special action of the faculty of the college in which a student is registered. Such authorization must be obtained prior to enrollment in extension work. If authorization is given, no student is permitted to earn more than twelve of the last thirty-six hours in this manner. Under no circumstances will a student in residence be permitted to register for a correspondence course if that course is being offered in Summer Session.

MAXIMUM AND MINIMUM LOAD

The maximum load for which an undergraduate may register in an eight-week term is 9 semester hours. The maximum load in a six-week term is 6 semester hours.

The minimum load for any student is three semester hours. Original registration for less than three hours must be approved by the Dean of the college in which the student is enrolled. After registration, the student may reduce his load to less than three hours only with the approval of the Senate Committee on Student Petitions.

UNCLASSIFIED STUDENTS

1. This group will include (a) students from other colleges and universities who wish to earn credits in the Summer Session to be transferred eventually to their respective institutions, and (b) other students not candidates for degrees.

2. In the event any student who has attended a Summer Session as an unclassified student later wishes to become a candidate for a degree in one of the colleges or schools of the University, he may do so (1) by regularizing his admission to the University (present all the credentials required) and (2) by meeting the requirements (in effect at the time of his application for candidacy) for admission to the school or college he desires to enter.

3. If such a student is admitted to candidacy for a degree, credits earned while an unclassified student will be accepted insofar as they apply toward the degree requirements (in effect at the time he is admitted to candidacy) of the college or school chosen by the student. A student must have been registered as a regular student in the college or school from which he expects to receive the Bachelor's Degree for at least three six-week summer terms or two eight-week summer terms, and in the Graduate School for at least five summer terms for the Master's Degree. The residence requirement (see above) in the University will not be waived in any case.

4. Students regularly enrolled during the academic year cannot become unclassified students during the Summer Session.

5. Each student registered as an unclassified student will be given a definite statement of the policies governing the application for admission to candidacy in the various colleges and schools. This statement will make clear that credits earned while a student is registered as an unclassified student can be applied toward a degree in the college of his choice only if under regular procedure this credit will apply toward that degree.

6. The registration blanks for unclassified students will be approved by the Registrar and assistants chosen by him from the faculty.

ABSENCES OR UNSATISFACTORY WORK

Absences count from the first meeting of the class rather than from the date a student registers for a class.

A. If any student accumulates absences or fails to do class work to the extent that further enrollment in the class appears to be of little value to him or detrimental to the best interest of the class, it shall be the duty of the instructor to warn such student in writing that further absences or failure to do class work will cause him to be suspended from the course with a failing grade. Where

possible this warning will be delivered personally; otherwise, it will be mailed to the student's last University address by the Registrar. Instructors shall immediately report all such warnings to the department head or course chairman. Should any absences or failure to do classwork be incurred after this warning, the student will be suspended from the class and be given a failing grade by the Registrar upon receipt of notice from the instructor showing the date of warning.

Should this reduce the load of the student below the minimum required, he will be suspended from the University.

B. When a student is suspended from a course under the provisions of A above, his parents shall be notified in writing by the Registrar.

C. A student who has been warned for absences or unsatisfactory work in any class should not incur additional absences in that course even though he has not been absent from the class for nine scholastic days. It is the responsibility of the student to see that his work and attendance are satisfactory.

PROBATION, SUSPENSION, AND EXCLUSION FOR ACADEMIC REASONS

The University of Florida accepts the responsibility of providing sound higher education. This includes the obligation to both the public and to the student of providing good higher education in an economical and efficient manner. In order to discharge this responsibility, the University must require reasonable academic progress from its students in return for the opportunity afforded them by a tax supported state university. To continue the registration of students who have demonstrated that they do not possess the necessary ability, or preparation, or industry, or maturity to obtain a reasonable benefit from a program of University study is inconsistent with this responsibility.

Consequently, the University of Florida Senate has enacted the following University regulations covering probation, suspension, and exclusion for academic reasons. Any college of the University may enforce additional academic standards and each student is responsible for observing the regulations of his college relating to such additional standards.

It is important to note that a student may be placed on various kinds of probations for reasons other than those listed below. For example, he may be admitted to the University on a probationary basis or he may be placed on disciplinary probation by reason of conduct or, in some cases, he may be placed on probation by the Committee on Student Petitions. In cases such as the foregoing the individual student will receive in writing a specific set of conditions which he must meet in order to remove the probation. In most cases these conditions will require loads, grades, etc., that are above the minimums set forth below. Inasmuch as such a student will have been placed on one of these specific probations only because of some previous academic difficulty or misconduct, in his particular case the specific terms of probation which are set forth for him become the necessary minimum achievement rather than the conditions set forth below.

ACADEMIC PROBATION

Lower Division Students:

1. A Lower Division student who fails to maintain a 1.0 honor point average for all work attempted in his first or second semester at the University of Florida will be placed on academic probation for his next semester.

2. A Lower Division student on academic probation (Under Article IV or XV) during his second semester will be ineligible for further registration in the University unless he maintains a 1.0 honor point average in all work attempted in that semester.

3. A Lower Division student who has attempted more than two semesters and who fails to maintain a 1.5 honor point average on all work attempted each semester thereafter will be placed on academic probation for his next semester.

4. A Lower Division student who has attempted more than two semesters and who is on academic probation (Under Article IV or XV) shall be ineligible for further registration in the University unless he maintains a 1.5 honor point average in all work attempted in that semester, or has a 1.5 cumulative honor point average in the total of all work attempted to date.

5 A Lower Division student who has attempted six semesters of work in the Lower Division shall be ineligible for further registration in the University unless he has been admitted to an Upper Division college.

A semester during which a student withdraws after the last date for dropping courses without a failing grade and any semester in which a student is suspended for non-attendance or unsatisfactory work shall be considered as a semester attempted in administering these regulations (Sections 1 through 5 above).

Upper Division Students:

6. Any Upper Division student who fails to maintain a 1.8 honor point average for all work attempted in any semester shall be placed on academic probation for his next semester.

7. An Upper Division student on academic probation (under Article IV or XV) will be ineligible for further registration in the University unless he maintains a 2.0 honor point average in all work attempted that semester or has 2.0 cumulative honor point average in the total of all work attempted while registered in his present Upper Division college.

SUSPENSION

All Undergraduate Students:

8. All Undergraduate students (all those classified other than 6) who do not receive passing grades (A, B, C, or D) in more than one-half of the hours attempted in any term or semester shall be suspended immediately from the University for one full semester; however, failure in only one course carrying five semester hours credit or less shall not cause the student to be suspended under

this provision. All Undergraduate students who are dropped from a course for excessive absences or unsatisfactory work and as a result of such drop are left with a load of less than 12 semester hours will be suspended for one full semester. A student eligible to return to the University after such a suspension shall be placed on academic probation for his next semester. The terms for satisfying his probation shall be those provided above appropriate to the number of semesters attempted. A second suspension for academic reasons shall be final and the student will not be eligible for further attendance at the University.

Graduate Students:

9. Any graduate student may be denied further registration in the University or in his graduate major when his progress toward completion of his planned graduate program becomes unsatisfactory.

ADMINISTRATIVE PROVISIONS:

10. All actions taken under these regulations shall be reflected by appropriate notations on the student's record.

11. A student attending a summer session prior to his probational semester may satisfy the terms of his probation if he obtains the necessary probation honor point average as indicated above, computed by taking the grades of his last semester and summer session together.

COMPREHENSIVE EXAMINATIONS

The comprehensive course examinations (of which the student must successfully pass six or more to complete the program of the University College) are administered by the Board of University Examiners and are given in January, May, and August of each year. A student must be familiar with the work of the various courses and be able to think in the several fields in a comprehensive way in order to pass these examinations. Standings on the comprehensive examinations are issued by the Board of Examiners and are not subject to change by any other agency.

APPLICATIONS FOR COMPREHENSIVE EXAMINATIONS

University College students who are enrolled in a course at the time the examination is given need not make application for it. University College students who are not enrolled in a course at the time an examination is given and who wish to take the comprehensive examination must apply in writing to the Board of Examiners for permission prior to the last date set for filing such applications. *Applications will not be accepted from students registered in the colleges of the Upper Division.* Before the application is accepted the applicant will be required to furnish the Board of Examiners with proof that this privilege has not been used to avoid the payment of usual University fees. Applications will be accepted only for those examinations which are administered by the Board of Examiners. The Board of Examiners is the only agency authorized to give University College students examinations by application.

THE UNIVERSITY COLLEGE

INTRODUCTORY STATEMENT

All freshmen and sophomores who enter the University of Florida, enroll in the University College. This unit offers a basic General education program as the foundation of a true liberal education, and administers the pre-professional work required by the Upper Division schools and colleges. Before a student makes his tentative choice of an educational goal final, he is given a long hard look at the great fields of human thought and achievement. There is at the college level certain fundamental knowledge that is needed by all beginners, to the end that they develop the attitudes and understandings of desirable human beings and citizens.

Thus the University of Florida while fully accepting its responsibility for the professional training of students who remain four years or longer and earn degrees, as a state institution it also accepts its civic responsibility to help students who remain only one or two years at the University. These students—approximately two-thirds of all who enroll—deserve more from their state university than the usual odd assortment of introductory and pre-professional courses commonly given to freshmen—fragmentary material at its best.

To meet this challenge the University College faculties have worked out integrated comprehensive studies in the following areas:

1. *American Institutions* (their developmental history, problems and processes—social, governmental and economic.)
2. *The Physical Sciences* (man's environment in the physical universe—study of some of the physical forces.)
3. *Reading, Speaking and Writing* (Freshman English, language and communication.)
4. *Effective Thinking* (how to think straight, logic and math.)
5. *The Humanities* (literature, philosophy, religions and the arts.)
6. *The Biological Sciences* (the living world—its vast historical sweep in time and place.)

These comprehensive courses cut across old department lines. Problems, principles, cases, trends, emerging systems, and other developments are closely studied as staff judgment indicates significant meanings, and experience determines effectiveness. Yearly revisions are in order. These comprehensives, or their equivalents are required of all freshmen and sophomores.

GUIDANCE

If a freshman is still undecided about his life's work, he is not urged to guess on registration day. His program may be made up largely from the comprehensives which help him direct his thinking toward a desirable objective, together with approved electives that may further enable him to explore interests and needs. But whether the student is decided or undecided about his life's work, these comprehensive courses provide basic preparation that every educated person should have.

Thus since the purpose of general education is to replace fragmentation, the program absorbs much of the responsibility for guidance. Every subject or

course of the University College program is designed to *guide* the student. During the time that he is making tentative steps toward a profession by taking special subjects to test aptitudes, interests, and ability, he is also studying the several great areas of human understanding and achievement. The work in the University College presents materials which are directly related to life experiences and which will immediately become a part of the student's thinking to guide him to making correct *next steps*. Thus the whole program—placement tests, progress reports, vocational aptitude tests, basic vocational materials, selected material in the comprehensive courses, student conferences, adjustments for individual differences, election privileges, and comprehensive examinations—is a part of a plan designed to *guide* students.

UPPER DIVISION COOPERATION

While the necessary correlation and unification is attempted at the University College Office, throughout the University College period students consult Upper Division deans and department heads to discuss future work. During the last month of each school semester these informal conferences are supplemented by a scheduled formal conference at which each student fills out a pre-registration card for his prospective Upper Division work.

UNIVERSITY COLLEGE COUNSELORS

The University College Counselors do not assume the responsibility that every student himself must take, but they help in every way possible as he assumes a greater and greater share of responsibility in his University education. The counselors are located in the University College Office.

Every spring the University is privileged to give placement tests to all seniors in every high school of the state. Since many high schools are also trying to acquaint the student with the common body of knowledge so needed by all, their records along with the placement tests results indicate the variation that may be made in the general program.

A student who has had three or four years of preparatory school study in any one of the subject areas of the comprehensive courses, and his placement tests or progress tests indicate superior knowledge and understanding at this level may consult one of the counselors for subsequent needed program adjustment.

THE ASSOCIATE OF ARTS CERTIFICATE

The Associate of Arts Certificate is awarded in recognition of the successful completion of two years of planned work at the University of Florida. In specific detail, one must pass at least sixty-four semester hours including pre-professional work and the comprehensive courses that make up the core program.

PROGRAMS OF STUDY

NORMAL PROGRAM

Freshman Year	Hours
1.—American Institutions	8
2.—The Physical Sciences	6
3.—Reading, Speaking and Writing: Freshman English	8
4.—Logic and Mathematics	6
5.—Departmental Electives	2-6
Military Science; Physical Fitness	2
	30-34

Sophomore Year	Hours
1.—The Humanities	8
2.—Biological Science	6
3.—Departmental Electives	16-20
Military Science; Physical Fitness	2
	30-34

At least sixty-four semester hours, which may include four hours of Military Science, are required to complete the Lower Division.

COLLEGE OF AGRICULTURE

While in the University College, students planning to enter the College of Agriculture should take the following program of study. The sequence in which courses are to be taken will depend upon the department in which a student takes his major in the upper division and will be determined by the counselors of the Colleges of Agriculture.

BASIC CURRICULUM—FRESHMAN AND SOPHOMORE YEARS

Course	First Semester	Credits
C-11,	American Institutions	4
C-31,	Reading, Speaking and Writing	4
BTY. 180,	Elementary Botany	4
CY. 215,	Introductory Chemistry	3
C-41,	Logic	3
C-51,	Humanities	4
	Mil. Sci. & Physical Fitness[1]	4
	Elective in Agriculture*	4-5

Course	Second Semester	Credits
C-12,	American Institutions	4
C-32,	Reading, Speaking and Writing	4
BLY. 181,	General Zoology	4
CY. 217,	General Chemistry and Qualitative Analysis	4
C-42,	Fundamental Mathematics	3
C-52,	Humanities	4
AS. 201,	Principles of Agricultural Economics	3
	Approved Electives*	7-8

Total Credits—64

[1] Hour must be taken each semester.

*Elective courses must have the approval of the Dean of the College of Agriculture. The following courses have been approved as suitable electives in Agriculture: ACY. 208, AS. 306 or 308, AG. 306, AY. 221, AL. 309, BCY. 300, BTY. 211 or 280, DY. 211, EY. 203 or 307, EDF. 245, FY. 313, FT. 301, FC. 201, OH. 203 or 217, PT. 321, PY. 201, SLS. 310, VC. 212.

ARCHITECTURE AND FINE ARTS

The University College student who plans to earn a degree in the College of Architecture and Fine Arts elects one of the following basic programs:

A.—For the degree in Architecture—

Freshman Year	Hours
1.—C-11-12, American Institutions	8
2.—C-31-32, Reading, Speaking and Writing: Freshman English	8
3.—*MS. 105-106, Basic Mathematics	8
4.—AE. 111-112, Graphic Techniques I, II	4
5.—AE. 121-122, The Building Arts I, II	5

Sophomore Year	Hours
1.—C-51-52, The Humanities	8
2. C-61-62, Biological Science	6
3.—**PS. 201-202, General Physics	6
4.—AE. 211-212, Visual Expression I, II	4
5.—AE. 231-232, Elementary Architecture Design I, II	6
6.—AE. 241-242, Materials & Methods of Construction I, II	4

6. MY. 101-102, Military Science or Elective	2
7.—PL. 101-102, Physical Fitness	0
	35

7.—MY. 201-202, Military Science or Elective	2
8.—PL. 103-104, Physical Fitness	0
	36

B.—For the degree in Landscape Architecture—

Freshman Year	Hours
1.—C-11-12, American Institutions	8
2.—C-21, The Physical Sciences	3
3. C-31-32, Reading, Speaking and Writing: Freshman English	8
4.—C-41, Practical Logic	3
5. AE. 111-112, Graphic Techniques I, II	4
6.—AE. 121-122, The Building Arts I, II	5
7.—MY. 101-102, Military	2
8.—PL. 101-102, Physical Fitness	0
	33

Sophomore Year	Hours
1.—C-42, Fundamental Mathematics	3
2.—C-51-52, The Humanities	8
3.—C-61, Biological Science	3
4.—BTY. 180 General Botany	4
5.—CY. 109, Elementary Chemistry	3
6.—AE. 211, Visual Expression I	2
7.—AE. 231-232, Elementary Architectural Design I, II	6
8.—AE. 241, Materials and Methods of Construction, I	2
9.—MY. 201-202, Military	2
10.—PL. 103-104, Physical Fitness	0
	34

C.—For the degree in Interior Design—

Freshman Year	Hours
1.—C-11-12, American Institutions	8
2. C-31-32, Reading Speaking, and Writing: Freshman English	8
3.—C-41, Practical Logic	3
4.—C-42, Fundamental Mathematics	3
5.—AE. 111-112, Graphic Techniques I, II	4
6.—AE, 121-122, The Building Arts I, II	5
7.—MY. 101-102, Military	2
8.—PL. 101-102, Physical Fitness	0
	33

Sophomore Year	Hours
1.—C-21-22, The Physical Sciences	6
2.—C-51-52, The Humanities	8
3.—C-61-62, The Biological Sciences	6
4.—AE, 211-212, Graphic Expression I, II	4
5.—IR. 231-232, Elementary Interior Design I, II	6
6.—AE. 241, Materials and Methods of of Construction I	2
7.—MY. 201-202, Military	2
8.—PL. 103-104, Physical Fitness	0
	34

D.—For the degree in Building Construction—

Freshman Year	Hours
1. C-1, American Institutions	8
2.—C-3, Freshman English	8
3.—*MS. 105-106, Basic Mathematics	8
4.—AE. 121, The Building Arts I	2
5.—BCN. 102, Construction Drawing	3
6.—MY. 101-102, Military	2
7.—PL. 101-1-2, Physical Education	0
	31

Sophomore Year	Hours
1.—C-5, The Humanities	8
2.—C-6, Biological Science	6
3.—**PS. 201-2, General Physics	6
4.—BCN, 203, Construction Planning	3
5.—BCN. 204, History of Building	3
6.—BCN. 205, Basic Studies of Materials	3
7.—BCN. 206, Construction Mechanics	3
8.—MY. 201-2, Military	2
9.—PL. 103-4, Physical Education	0
	34

*Students not qualified for MS. 105-106 will take C-42 first.
**Students not qualified for PS. 201-202 will take C-22 first.

E.—For the degree in Art (Fine Arts, History of Art, Crafts, or Advertising Design)—

Freshman Year	Hours
1.—C-11-12, American Institutions	8
2.—C-21-22, The Physical Sciences	6
3.—C-31-32, Reading, Speaking and Writing: Freshman English	8
4. ART 101-102 Beginning Design	4
5.—ART 103-104, Beginning Drawing and Painting	4
6.—Military Science or Elective	2
7.—Physical Fitness	0
	32

Sophomore Year	Hours
1.—C-41-42, Logic & Mathematics	6
2.—C-51-52, The Humanities	8
3.—C-61-62, Biological Sciences	6
4.—ART 205, Intermediate Design	2
5.—ART 206, Intermediate Drawing & Painting	2
6.—ART 207-208, Introd. to the Principles and History of Art	6
7.—Military Science or Elective	2
8.—Physical Fitness	0
	32

F.—For the degree in Art Education—

Freshman Year	Hours
1.—C-11-12, American Institutions	8
2.—C-21-22, The Physical Sciences	6
3.—C-31-32, Reading, Speaking and Writing: Freshman English	8
4.—ART 101-102, Beginning Design	4
5.—ART 103-104, Beginning Drawing and Painting	4
6.—Military Science or Elective	2
7.—Physical Fitness	0
	32

Sophomore Year	Hours
1.—C-41-42, Logic & Mathematics	6
2.—C-51-52, The Humanities	8
3.—C-61-62, Biological Sciences	6
4.—ART 205—Intermediate Design	2
5.—ART 206—Intermediate Drawing and Painting	2
6.—SCA. 253, Art Education I	3
7.—EDF. 245—Human Growth & Development	3
8.—Military Science or Elective	2
9.—Physical Fitness	0
	32

G.—For the degree in Music Education—

Freshman Year	Hours
1.—C-11-12, American Institutions	8
2.—C-31-32, Freshman English	8
3.—C-51-52, The Humanities	8
4.—MSC. 101-102, Theory of Music	6
5.—Applied Music in Courses below 100: Major Instrument or Voice	2
6.—Ensemble: Band, Chorus, or Orchestra	2
7.—MY. 101-102, Military Science or Elective	2
8.—PL. 101-102, Physical Fitness	0
	36

Sophomore Year	Hours
1.—C-21-22, The Physical Sciences	6
2.—C-41-42, Logic and Mathematics	6
3.—C-61-62, Biological Sciences	6
4.—MSC. 201-202, Theory of Music	6
5.—Applied Music in Courses above 100: Major instrument or Voice	4
6.—Ensemble: Band, Chorus, or Orchestra	2
7.—EDF. 245, Human Growth & Development	3
8.—MY. 201-202, Military Science or Elective	2
9.—PL. 103-104, Physical Fitness	0
	35

ARTS AND SCIENCES

A student who plans to earn a 4-year degree in the College of Arts and Sciences should secure credit in all of the comprehensive areas as indicated by the University College. Electives in the first two years should be taken in introductory courses in possible major fields and in foreign languages. Students who have selected a major should limit their University College electives in the major to permit taking introductory and intermediate courses in other liberal arts areas.

For further information concerning special programs of instruction and the details of degree requirements the student is referred to the regular University Catalog.

PRE-MEDICAL OR PRE-DENTAL STUDENTS

Medical schools the country over require for admission usually a minimum of three years (90 semester hours) and dental schools require a minimum of two years (60 semester hours). The subjects which most catalogs list are:

Pre-medical	Pre-dental
6 semester hours of English	6 semester hours of English
8 semester hours of Inorganic Chemistry	6 semester hours of Biology
8 semester hours of Organic Chemistry	6 semester hours of Physics
8 semester hours of Physics	8 semester hours of Inorganic Chemistry
8 semester hours of Biology	4 semester hours of Organic Chemistry
6 semester hours of French and German	30 semester hours of Electives
40-50 semester hours of Electives	

These specific subjects may be taken as a part of a regular University College program. Catalogs of medical schools are kept at the University College Office and at the Pre-Professional Counselling Office (12-B Flint Hall).

Not all applicants who meet the minimum requirements are accepted. The ratio varies from 1 in 5 to 1 in 30. Excellent grades in the preparatory subjects are essential.

A complete statement of the requirements of the University of Florida Medical College is to be found in another part of this catalog.

BUSINESS ADMINISTRATION

To enter the College of Business Administration, students are required to complete the curriculum below or the equivalent thereof in each of the courses or areas of knowledge listed including the following:

ES. 201-202.—Basic Economics
ATG. 211-212.—Elementary Accounting
ES. 203.—Elementary Statistics
MS. 325—Advanced General Mathematics

Freshman Year

First semester	Hours	Second Semester	Hours
1.—American Institutions	4	1.—American Institutions	4
*2.—The Physical Sciences	3	*2.—The Physical Sciences	3
*3.—Logic or Mathematics	3	*3.—Logic or Mathematics	3
4.—Reading, Speaking and Writing: Freshman English	4	4.—Reading, Speaking and Writing: Freshman English	4
5.—Approved Electives	3	5.—Approved Electives	3
Military Science; Physical Fitness	1	Military Science; Physical Fitness	1
	15-18		15-18

Sophomore Year

1.—Accounting	3	1.—Accounting	3
2.—Economics	3	2.—Economics	3
3.—The Humanities	4	3.—The Humanities	4
4.—Biological Science	3	4.—Biological Science	3
5.—Statistics or MS. 325	3-4	5.—Statistics or MS. 325	3-4
Military Science; Physical Fitness	1	Military Science; Physical Fitness	1
	17-18		17-18

*A student who has had three or more years of mathematics and science in preparatory school and whose standings on the placement tests indicate superior knowledge and understanding at these levels may substitute one of the introductory basic sciences for the general Physical Science course (C-2) and Basic Mathematics for Logic and Fundamental Mathematics.

At least sixty-four semester hours, which may include four hours of Military Science, are required to complete the Lower Division.

COURSES OFFERED BY THE COLLEGE OF BUSINESS ADMINISTRATION AVAILABLE TO STUDENTS IN THE UNIVERSITY COLLEGE

The following courses offered by the College of Business Administration may be taken by students in the University College: ATG. 211-212, Elementary Accounting; ATG. 214, Federal Income Taxes for Individuals; B.S. 101, Introduction to Business; BS. 204, Business Ethics; ES. 203, Elementary Statistics; ES. 201-202, Basic Economics; ES. 208, Economic History of the United States; ES. 210, Machine Technology in American Life; ES. 246, Consumer Economics; ES. 296, Industry and Trade of Latin America; FI. 260, Fundamentals of Insurance; MGT. 271, Principles of Management; MKG. 231, Principles of Marketing; MKG. 233, Salesmanship; RE. 291, Real Estate Fundamentals; and RE. 295, Housing and Home Ownership.

It is anticipated that some students who do not plan a four-year program will elect to take many of these courses or to arrange a program of two years or less in length in which many of these courses would be included. Also some students not headed for the College of Business Administration may wish to elect one or more of these courses.

EDUCATION

BASIC PROGRAM

University College students working toward a degree in the College of Education should pursue one of the following programs:

(Except Agricultural Education)

Freshman Year	Credits	Sophomore Year	Credits
C-1.—American Institutions	8	C-5—The Humanities	8
C-2.—The Physical Sciences	6	C-6.—Biological Science	6
C-3.—Reading, Speaking and Writing: Freshman English	8	C-4.—Logic or Mathematics	3
C-4.—Logic or Mathematics	3	EDF. 245, Human Growth and Development	3
Military Science or Electives	2	Military Science or Electives	2
Electives (from list below)	6-8	Electives (approved)	9
Physical Fitness	0	Physical Fitness	0
	33-35		31

Electives:

Art Education: ART 101, 102, 103, 104, 205, 206; SCA 253.
Elementary Education: MSC 161 (Prerequisite: MSC 160 or pass music skills test); PHA 373; SCA 253.
Industrial Arts Education: IN 102.
Music Education: MSC 101, 102; 4 credits in ensemble, 4 credits in applied music.
Physical Education for Men: PHA 251, 291, 283, 284, 287.
Physical Education for Women: PHA. 251, 291, 252, 253, 254, 255, 256, 257, 258.
Secondary Education: electives should include 9 hours of basic courses in the teaching field and an approved elective in the Human Adjustment area.

In Secondary Education and Industrial Arts Education, 3 hours in the Human Adjustment area, other than C-41, are required. These electives may be taken either in the University College or in the College of Education.

BASIC PROGRAM FOR AGRICULTURAL EDUCATION

Freshman Year	Credits	Sophomore Year	Credits
C-1—American Institutions	8	C-41—Practical Logic	3
C-3—Reading, Speaking and Writing: Freshman English	8	C-42—Fundamental Mathematics	3
BTY. 180—Elementary Botany	4	C-5—The Humanities	8
BLY. 181—General Zoology	4	CY. 215—Introduction to Chemistry	3
Electives in Agriculture	6	CY. 217—General Chemistry and Qualitative Analysis	4
Military Science; Physical Fitness	2	Electives in Agriculture	6
	32	Approved Electives	3
		Military Science; Physical Fitness	2
			32

ENGINEERING

The program for the first and second year students expecting to earn a degree in the College of Engineering is as follows:

First Semester	Credits
1.—C-11, American Institutions	4
*2.—C-21, The Physical Sciences	3
3.—C-31, Reading, Speaking and Writing: Freshman English	4
*4.—C-42, Fundamental Mathematics	3
5.—Military Science	1
6.—PL. 101, Physical Fitness	0
	15

Second Semester	Credits
1.—C-12, American Institutions	4
*2.—C-22, The Physical Sciences	3
3.—C-32, Reading, Speaking and Writing: Freshman English	4
*4.—C-41, Practical Logic	3
*5.—MS. 105, Basic Mathematics	4
6.—Military Science	1
7.—PL. 102, Physical Fitness	0
	19

Third Semester	Credits
*1.—MS. 106, Basic Mathematics	4
2.—CY. 217, General Chemistry and Qualitative Analysis	4
3.—C-51, The Humanities	4
**4.—EGR. 181, Engineering Drawing	3
5.—Military Science	1
6.—PL. 103, Physical Fitness	0
	16

Fourth Semester	Credits
1.—MS. 353, Differential Calculus	4
2.—CY. 218, General Chemistry and Qualitative Analysis	4
3.—C-52, The Humanities	4
**4.—EGR. 182, Descriptive Geometry	3
5.—Military Science	1
6.—PL. 104, Physical Fitness	0
	16

A student interested in the Florida Industries Cooperative Plan should contact the engineering department of his choice or the Dean's office for specific advice before registering for the first semester.

Students whose records in the University College indicate that they are qualified to take the professional courses in Engineering will be admitted to the College of Engineering.

*In cases where students, on the basis of superior placement test grades, are allowed to omit starred courses, they will need to take an equivalent amount of more advanced work in order to be eligible for admission to the College of Engineering at the end of the second year.

**Drawing equipment required for EGR. 181, EGR. 182, and subsequent courses cost approximately thirty dollars.

Students whose records in the University College do not indicate that they are qualified to take the professional courses in Engineering will not be admitted to the College of Engineering.

FORESTRY

Students planning to enter the School of Forestry should complete the respective outline of courses listed in the regular University Catalog as required for the freshman and sophomore years for the Forestry curriculum of their choice.

Those students falling below a 2.0 grade average will be considered for admittance to the School of Forestry only after they have demonstrated the ability to satisfactorily carry on the professional courses in Forestry.

HEALTH RELATED SERVICES

The University College student who plans to earn a degree in the College of Health Related Services elects one of the following programs:

A.—For the degree in Medical Technology—

Freshman Year	Hours
1.—C-1, American Institutions	8
2.—C-3, Reading, Speaking and Writing	8
3.—*C-4, Logic and Mathematics	6
4.—CY. 217-8, General Chemistry and Qualitative Analysis	8
5.—Military Science or Elective	2
6.—Physical Fitness	0
	32

Sophomore Year	Hours
1.—C-5, The Humanities	8
2.—BTY. 180, Introductory Botany	4
3.—BLY. 181, General Zoology	4
4.—HRS. 201, Introduction to Health Related Services	2
5.—PS. 109-110, Elements of Physics	4
6.—CY. 362, Organic Chemistry	3
7.—Military Science or Elective	2
8.—Approved Electives	7
9.—Physical Fitness	0
	34

B.—For the degree in Occupational Therapy—

Freshman Year	Hours	Sophomore Year	Hours
1.—C-1, American Institutions	8	1.—C-5, The Humanities	8
2.—C-2, The Physical Sciences	6	2.—BTY. 180, Introductory Botany	4
3.—C-3, Reading, Speaking, and Writing	8	3.—BLY. 181, General Zoology	4
4.—*C-4, Logic and Mathematics	6	4.—HRS. 201, Introduction to Health Related Services	2
5.—ART 101-2, Beginning Design	4	5.—PSY. 201, General Psychology	3
6.—Physical Fitness	0	6.—PSY. 410, Abnormal Psychology	3
	32	7.—Approved Electives	8
		8.—Physical Fitness	0
			32

C.—For the degree in Physical Therapy—

Freshman Year	Hours	Sophomore Year	Hours
1.—C-1, American Institutions	8	1.—C-5, The Humanities	8
2.—C-3, Reading, Speaking and Writing	8	2.—BTY. 180, Introductory Botany	4
3.—*C-4, Logic and Mathematics	6	3.—BLY. 181, General Zoology	4
4.—CY. 217-8, General Chemistry and Qualitative Analysis	8	4.—PSY. 201, General Psychology	3
5.—Military Science or Elective	2	5.—HRS. 201, Introduction to Health Related Services	2
6.—Physical Fitness	0	6.—PS. 109-110, Elements of Physics	4
	32	7.—Military Science or Elective	2
		8.—Approved Electives	7
		9.—Physical Fitness	0
			34

*Those in upper percentiles on Mathematics Placement Test may take MS. 105 or MS. 325 in place of C-42 with permission of University College Adviser.

JOURNALISM AND COMMUNICATIONS

To enter the School of Journalism and Communications students are required to have completed the comprehensive courses required in the University College and these pre-professional courses: JM. 118—Survey of Communications; JM. 201—Writing for Mass Communications; BS. 201—Basic Economics; and LY. 201—Uses of Books and Libraries. In addition to the above pre-professional courses, the Advertising majors will take ART 101—Beginning Design and SCH. 201—Effective Speaking; the Broadcasting majors will take BR. 212—Broadcast Announcing: and the Journalism and Public Relations majors will take SCH. 201—Effective Speaking.

LAW

Applicants for admission to the College of Law must have received before admission a four-year baccalaureate degree from a college or university of approved standing and a minimum score of 340 on the Law School Admission Test.

Although no particular courses are prerequisites, a student preparing for admission to the College of Law should obtain a thorough mastery of the basic comprehensive courses and should take also at least an academic year's work in each of the following general fields: Accounting, Economics, English, American History, English History and Political Science. Since concepts expressed in words are tools of the legal profession, it is essential that a student be able to read rapidly and meaningfully and to write clearly and concisely. Courses requiring the rapid assimilation and digestion of written materials and courses in expository writing therefore are recommended.

PHARMACY

A newly required five-year program in pharmaceutical education is being inaugaurated for all students beginning accredited academic studies in or after April, 1960. Students who began a college program in any accredited college or university before April, 1960, may enroll in the older program. This is in keeping with the new regulation required for accreditation by the American Council on Pharmaceutical Education.

All students must be enrolled in one or more Pharmacy courses for a minimum of three academic years or a total of twenty-seven months, regardless of the number of studies completed in other fields. Upon enrolling in Pharmacy courses for the first time students must sign the register in the office of the Dean of the College of Pharmacy.

The following programs are recommended for the first two years:

I. For students who are not under the new regulation:

CURRICULUM

Lower Division

Freshman Year and Summer Session	Hours	Sophomore Year	Hours
C-11-12, American Institutions	8	C-52, The Humanities	4
C-31-32, Freshman English	8	C-62, Biological Science	3
C-42, Fundamental Mathematics	3	PS. 201-2, General Physics	6
MS-325, Advanced General Mathematics	3	PS. 207-8, Physics Laboratory	2
C-51, The Humanities	4	PGY. 221-2, Practical Pharmacognosy	6
C-61, Biological Sciences	3	PHY. 223-4, Galenical Pharmacy	6
CY-215-217, General Chemistry and Qualitative Analysis	7	CY. 218, General Chemistry and Qualitative Analysis	4
PHY. 106, Pharmaceutical Calculations	2	CY 331, Quantitative Analysis	4
Military Science; Physical Fitness	2	Military Science; Physical Fitness	2
Total	40	Total	37

Only students having an average of C or higher will be admitted to the College of Pharmacy and/or pharmacy courses in the Upper Division. In addition, students must have grades of C or higher in C-42, CY 215-217, PHY 106, PGY 221-222, PHY 223-224.

II. For students who are under the new five-year regulation:

CURRICULUM

First Year—Freshman Year	Hours	Second Year—Sophomore Year	Hours
C-11-12, American Institutions	8	C-51-52, The Humanities	8
C-31-32, Freshman English	8	C-61-62, Biological Science	6
C-42, Fundamental Mathematics	3	PS-201-2, General Physics	6
MS-325, Advanced General Math	3	PS-207-8, Physics Laboratory	2
CY-215-7, General Chemistry and Qualitative Analysis	7	CY-218, General Chemistry and Qualitative Analysis	4
Military Science; Physical Fitness	2	CY-301, Organic Chemistry*	4
		Military Science; Physical Fitness	2
Total	31	Total	32

*The second half (CY. 302) is scheduled in the Upper Division.

Only students having an average of C or higher will be admitted to the College of Pharmacy and/or pharmacy courses.

PHYSICAL EDUCATION AND HEALTH

University College students expecting to earn a degree in the College of Physical Education and Health should pursue one of the following programs:

A.—For men intending to major in Physical Education—

Freshman Year	Credits	Sophomore Year	Credits
C-11-12,—American Institutions	8	C-21-22—The Physical Sciences	6
C-31-32—Reading, Speaking and Writing	8	C-51-52—The Humanities	8
C-41-42—Logic and Mathematics	6	C-61-62—Biological Science	6
PHA. 284—Team Games for Men	2	PHA. 251—Square and Social Dance	2
PHA. 287-Gymnastics for Men	2	PHA. 283—Track and Baseball	2
Approved Electives	4	EDF. 225—Social Foundations of Education	3
Military Science; Physical Fitness	2	EDF. 245—Aspects of Human Growth and Development	3
	32	Military Science; Physical Fitness	2
			32

B.—For women intending to major in Physical Education—

Freshman Year	Credits	Sophomore Year	Credits
C-11-12,—American Institutions	8	C-21-22—The Physical Sciences	6
C-31-32—Reading, Speaking and Writing	8	C-51-52—The Humanities	8
C-41-42—Logic and Mathematics	6	C-61-62—Biological Science	6
PHA. 251—Square and Social Dance	2	PHA. 252—Modern Dance	1
PHA. 253—Team Sports for Women	2	PHA. 254—Team Sports for Women	2
PHA. 255—Individual and Dual Sports for Women	2	PHA. 256—Swimming and Diving for Women	1
PHA. 257—Gymnastics for Women	1	PHA. 258—Tennis and Golf for Women	2
Approved Electives	3	EDF. 225—Social Foundations of Education	3
Physical Fitness	0	EDF. 245—Aspects of Human Growth and Development	3
	32	Physical Fitness	0
			32

C.—For men and women intending to major in Health Education—

Freshman Year	Credits	Sophomore Year	Credits
C-11-12,—American Institutions	8	C-51-52—The Humanities	8
C-31-32—Reading, Speaking and Writing	8	C-61-62—Biological Science	6
C-41-42—Logic and Mathematics	6	*CY. 121-122—General Chemistry	8
EDF. 245—Aspects of Human Growth and Development	3	SY. 201—Sociological Foundation of Modern Life	3
PHA. 261—Personal Hygiene	3	EDF. 225—Social Foundations of Education	3
Approved Electives	2	SY. 244—Marriage and Family	3
Military Science or Electives	2	Military Science or Electives	1
Physical Fitness	0	Physical Fitness	0
	32		32

*Students planning to major in Health Education must take CY 121-122. Students whose high school records and placement tests indicate satisfactory preparation may substitute CY. 121-122 for C-21-22. Others should take C-21, upon satisfactory completion of which they may enter CY. 121.

D.—For men and women intending to major in Recreation—

Freshman Year	Credits	Sophomore Year	Credits
C-11-12—American Institutions	8	C-21-22—The Physical Sciences	6
C-31-32—Reading, Speaking and Writing	8	C-51-52—The Humanities	8
C-41-42—Logic and Mathematics	6	C-61-62—Biological Science	6
PHA. 284—Team Games for Men or PHA. 253—Team Sports for Women	2	PHA. 251—Square and Social Dance	2
PHA. 255—Individual and Dual Sports for Women	2-0	SY. 201—Sociological Foundations of Modern Life	3
EDF. 245—Aspects of Human Growth and Development	3	PHA. 283—Track and Baseball or Pha. 258—Tennis and Golf for Women	2
Military Science or Electives	3-5	Military Science or Electives	5
Physical Fitness	0	Physical Fitness	0
	32		32

SCHOOLS AND COLLEGES OF THE UPPER DIVISION

COLLEGE OF AGRICULTURE

The College of Agriculture is composed of three units, namely, 1. Instruction, 2. Research (Agricultural Experiment Station), and 3. Extension (Agricultural Extension Service). The Instructional Division (The College proper) is made up of departments in the College devoted to the various phases of technical and practical agricultural work. The work of these departments is closely related, and the aim of the College is to afford students the best possible training for service in agriculture.

The departments in the College are: Agricultural Chemistry (administered jointly with the College of Arts and Sciences), Agricultural Economics, Agricultural Education (administered jointly with the College of Education), Agricultural Engineering, Agronomy, Animal Husbandry and Nutrition, Bacteriology, Botany, Dairy Science, Entomology, Food Technology and Nutrition, Fruit Crops, Ornamental Horticulture, Plant Pathology, Poultry Husbandry, Soils, Vegetable Crops, and Veterinary Science.

COLLEGE OF ARCHITECTURE AND FINE ARTS

The College of Architecture and Fine Arts offers programs of study leading to the appropriate undergraduate degrees in Architecture, Building Construction, Interior Design, Landscape Architecture, Painting and Drawing, Commercial Art, Crafts, Costume Design, History of Art, and Music. Programs at the graduate level are offered on Architecture, in Art, in Building Construction, and in Community Planning.

The College offers courses to students in other colleges of the University who wish to broaden their cultural background in the arts.

1960 SUMMER SESSION

During the 1960 Summer Session the College will offer a selected group of undergraduate courses in Architecture, Art and Music, as well as graduate courses in Architecture and Art.

TEACHERS' CERTIFICATES

The College of Architecture and Fine Arts offers courses leading to certification in Art and Music for teaching in the elementary and secondary schools in the State of Florida. Regulations describing certification of teachers are published by the State Department of Education and it is imperative that all students who expect to be certified familiarize themeslves with these regulations. Applications for certificate should be made immediately after graduation, and should be addressed to the State Superintendent of Public Instruction.

DEGREES AND CURRICULA

For detailed information on admission, undergraduate degrees, graduate degrees, and programs of study for the various curricula, see the University Catalog.

COLLEGE OF ARTS AND SCIENCES

The subject matter fields regularly offered to students in the College of Arts and Sciences and the extent of these offerings is indicated in the table below:

Subject	Elective Work	Major Dept.	Masters	Ph.D.
Anthropology	X	X	—	—
Art	X	X	Graduate work offered through College of Architecture and Fine Arts	
Astronomy	X	—	—	—
Bacteriology	X	X	Graduate work offered through College of Agriculture	
Biology	X	X	X	X
Botany	X	X	Graduate work offered through College of Agriculture	
Chemistry	X	X	X	X
Economics	X	X	Graduate work offered through College of Business Administration	
Education	X	Major and Graduate work offered through the College of Education.		
English	X	X	X	X
French	X	X	X	—
Geography	X	X	X	X
Geology	X	X	X	—
German	X	X	X	—
Greek	X	X	—	—
History	X	X	X	X
Journalism	X	Major and Graduate work offered in the School of Journalism and Communications		
Latin	X	X	X	—
Library Science	X	—	—	—
Mathematics	X	X	X	X
Meteorology	X	—	—	—
Music	X	X	—	—
Philosophy	X	X	X	—
Physics	X	X	X	X
Political Science	X	X	X	X
Psychology	X	X	X	X
Religion	X	X	—	—
Russian	X	X	—	—

Sociology	X	X	X	X
Spanish	X	X	X	X
Speech	X	X	X	X
Zoology	See Biology listed above			

For information regarding details of these programs of study and degree requirements, the University catalog for 1960-61 should be consulted.

COLLEGE OF BUSINESS ADMINISTRATION

The summer session offerings of the College of Business Administration provide basic courses in the several curricula groupings, a selection of advanced courses to enable students to go ahead with a normal academic program and a selection of graduate courses.

A number of curricula leading to the degree of Bachelor of Science in Business Administration are offered. For complete information on the reguirements for these curricula and for the graduate program, the University Catalog should be consulted.

COLLEGE OF EDUCATION

REQUIREMENTS FOR ADMISSION

For admission to the College of Education students will present a certificate of graduation from the University College, or equivalent, and have the approval of the Admissions Committee of the College of Education. (See General Catalog for detailed requirements.)

UNDERGRADUATE PROGRAMS

Students who are preparing to teach have the opportunity of specializing in the following teaching areas: art, biology-chemistry, biology-mathematics, business education, chemistry-mathematics, core, elementary, exceptional children, foreign language, foreign language-English, industrial arts, language arts, mathematics, mathematics-physics, physical education, music, social sciences, vocational agriculture. (See General Catalog for curricula. For further information consult the Undergraduate Counseling Office, 140 Norman Hall.)

GRADUATE PROGRAMS

Graduate work in education offers an opportunity for teachers to specialize in such areas as audio-visual education, agricultural education, business education, curriculum and instruction, early childhood education, educational administration, elementary education, foundations of education (educational psychology, history and philosophy of education, human growth and development), guidance and counseling, industrial arts and vocational education, junior college education, language arts education, mathematics education, research specialist in education, science education, secondary education, social studies education, supervision, teacher education, teaching exceptional children, and teaching of reading. (See General Catalog for requirements.)

NOTE: Orientation Meeting for *all* graduate students in Education, Thursday, June 23, 7:00 p.m. in Norman Auditorium. This meeting will be devoted to a discussion of policies and programs for graduate students in the College of Education.

CERTIFICATION OF TEACHERS

The curricula in the College of Education include State certification requirements. Each student should consult his counselor to plan a sequence of courses to meet requirements for his degree and for certification.

For further information concerning the certification of teachers, write to the State Department of Education, Tallahassee, Florida, requesting *State Board Regulations Relating to Florida Requirements for Teacher Education and Certification,* Revised June 18, 1957.

EDUCATIONAL PLACEMENT OFFICE

The Educational Placement Office serves both former students of the University and public school officials, without charge. The office keeps up-to-date records on registrants for positions and a current list of educational administration and teaching vacancies. Persons who wish this service should communicate with the Educational Placement Office, 140 Norman Hall.

THE P. K. YONGE LABORATORY SCHOOL

The summer term of the Laboratory School will extend from June 21 through July 29. Children of Summer Session students and all others are eligible for enrollment. Classes from the kindergarten through the sixth grade will be held. High school courses will be offered from the following areas: English, history, mathematics, science, and foreign language. Fees of $2.00 for University registration and a nominal fee for expendable materials will be charged. An additional fee is requested for those who register for the swimming program.

Parents will register pupils Monday, June 20, 3:00 to 5:00 p.m. in the P. K. Yonge administration building.

Application for admission should be made at the administrative office of the P. K. Yonge School as soon as possible, since the number who may be admitted is limited. Information regarding transcripts and transfer of credit for high school students is provided upon application.

EDUCATION CLASS IN EXCEPTIONAL CHILD EDUCATION

Through the cooperation of the Alachua County public schools and the P. K. Yonge Laboratory School, a demonstration class is provided for teachers interested in observing work with slow learning children. Observations may be scheduled in 120 Norman Hall.

COLLEGE OF ENGINEERING

UNDERGRADUATE PROGRAMS

Students who contemplate registration in the College of Engineering and those who are already registered in this college should confer about their schedules with the department heads and the dean as soon as possible.

The College of Engineering is offering several courses during the Summer Session in various departments so that students may graduate in a minimum time. Many other courses included in the engineering curricula, such as mathematics and physics, are also available. During the summer months the engineering student may also take subjects to meet elective requirements.

A student in the College of Engineering desiring to elect the Nuclear Option must confer with his department head before arranging his registration.

Students entering the University for the first time may find it to their advantage to enroll in mathematics and one of the following: Freshman English, American Institutions or General Chemistry. Students who have completed one year at the University may take courses in calculus and physics. Statics, dynamics, or strength of materials is suggested for those students who have completed calculus and physics. Elective subjects in mathematics, physics and the humanities are recommended to all students.

GRADUATE PROGRAMS

The graduate programs offered by the College of Engineering are continued during the summer in order to allow students already enrolled to complete their graduate work in a minimum length of time.

FORESTRY

Courses in Forestry are offered during the Summer Session. The required Summer Camp should be taken between the second and third year's work provided the necessary prerequisites have been completed. Students who contemplate registration in the School of Forestry should consult the University Catalog for courses which are prerequisites or are required in the Forestry curriculum.

COLLEGE OF HEALTH RELATED SERVICES

The College of Health Related Services offers three Bachelor of Science degrees: Medical Technology, Physical Therapy, and Occupational Therapy. Students are required to take the comprehensive courses and some preprofessional courses during the first two years. During the 1960 Summer Session there will be no courses offered in any of these specialties by the College of Health Related Services. Course offerings will be available at the Junior and Senior level in September 1960. Interested students are invited to confer with the chairman of the respective curriculum for further details concerning these health careers. The degree of Master of Rehabilitation Counseling is an inter-

disciplinary program designed to prepare students to assist in the rehabilitation of physically, emotionally, and mentally handicapped persons. RC.641 and RC.644 are offered in the 1960 Summer Session.

SCHOOL OF JOURNALISM AND COMMUNICATIONS

A UNIT OF THE COLLEGE OF ARTS AND SCIENCES

The curricula in the School of Journalism and Communications lead to the Degrees: Bachelor of Science in Journalism, Bachelor of Science in Advertising, or Bachelor of Science in Broadcasting.

The programs provide students with a broad background in liberal arts and sciences—literature, economics, history, political science, sociology, psychology—which are vital aspects of contemporary life and essential to those entering professional careers in printed media or audio-visual media of communications.

The general plan of education in this School is arranged so that the student spends about three-fourths of his time on general background courses. The remaining fourth involves the acquisition and practice of professional techniques in relation to this background knowledge.

Students entering the School of Journalism and Communications must choose one of the programs of study:

Those majoring in the News-Editorial and Public Relations fields will take the Journalism program, with their respective sequence of course work, and earn the BSJ degree. Students interested in advertising will take the Advertising program and earn the BSAdv degree, which those interested in radio and television will take the Broadcasting program and earn the BSBr degree.

COLLEGE OF LAW

1. The beginning courses in Law are not offered in the Summer Session; hence students are not admitted in June unless they have completed satisfactorily at least one semester of work in an accredited law school.

2. A student wishing to transfer from another accredited law school who, at the time of beginning his study of law, qualified for admission to this College under the stated requirements for beginning students and who has maintained a scholastic average of C or higher on all previous law school work undertaken, may apply for admission with advanced standing. Courses completed with a grade of C or higher in other accredited law schools will be acceptable for credit up to but not exceeding a total of thirty hours.

3. Applicants for admission must have received before admission a 4-year baccalaureate degree from an accredited college or university.

COLLEGE OF PHARMACY

The Summer Session offerings of the College of Pharmacy, a unit in the J. Hillis Miller Health Center, provide three courses in the Lower Division and

several courses in the Upper Division. Graduate students will be given guidance in research leading to the M.S. and Ph.D. degrees.

For complete description of the courses and requirements for admission and graduation the student should consult the University Catalog.

COLLEGE OF PHYSICAL EDUCATION AND HEALTH

GENERAL STATEMENT

The College of Physical Education and Health offers programs of instruction and services under five departments, namely, Health Service, Intramural Athletics and Recreation, Required Physical Education for Men, Required Physical Education for Women, and the Professional Curriculum.

THE PROFESSIONAL CURRICULUM

ADMISSION REQUIREMENTS

For admission to the College of Physical Education and Health students must present a certificate of graduation from the University College, or the equivalent, and have the approval of the Admissions Committee of the College of Physical Education and Health. (Consult the University Catalog for detailed requirements.)

UNDERGRADUATE DEGREES

The College of Physical Education and Health offers four undergraduate degrees: The Bachelor of Science in Physical Education, The Bachelor of Science in Health Education, The Bachelor of Science in Recreation, and The Bachelor of Science in Physical Therapy. For complete information concerning the several curricula and the requirements for these degrees, the University Catalog should be consulted.

GRADUATE DEGREE

Courses are offered by this College in the Graduate School leading to the degree of Master of Physical Education and Health with a major in physical education. Admission and degree requirements for graduates of accredited institutions are described under the Graduate Division section of this Catalog.

THE GRADUATE DIVISION

THE GRADUATE SCHOOL

ADMINISTRATION

The Graduate School consists of the Dean, the Assistant Dean, the Graduate Council, and the Graduate Faculty. It is responsible for the establishment and enforcement of minimum general standards of graduate work in the University and for the coordination of the graduate programs of the various colleges and divisions of the University. The responsibility for the detailed operations of graduate programs is vested in the individual colleges, divisions, and departments. In most of the colleges there is an assistant dean or other official who is directly responsible for graduate study in his college.

ADMISSION

Application for admission to the Graduate School must be made to the Director of Admissions on forms supplied by his office and at time stipulated in the *University Calendar*. Applications which meet minimum standards for admission are referred by the Director to the graduate selection committees of the various colleges and divisions for approval or disapproval.

No application will be considered unless the complete official transcripts of all the applicant's undergraduate and graduate work are in the hands of the Registrar, and no transcript will be accepted as official unless it is received directly from the Registrar of the institution in which the work was done. Official supplementary transcripts are required, as soon as they are available, for any work completed after making application.

In general, no student who is a graduate of a nonaccredited institution will be considered for graduate study in any unit of the University.

Admission of Faculty Members as Graduate Students.—Members of the faculty of the University of Florida with a rank of assistant professor or above (or equivalent), except county agents in the Agricultural Extension Services, may not receive a graduate degree from this institution. They may, however, register for work in the Graduate School and apply the credit earned to graduate degrees to be conferred by other institutions.

GRADE STANDARDS

Except as noted below, unqauified admission to the Graduate School is dependent upon presentation of an undergraduate record from an accredited college or curriculum with an average grade of "B" for the junior and senior years. In some units of the Graduate School and on the more advanced levels of graduate study, an undergraduate average considerably above "B" may be required. College selection committees take into account not only the general grade average but the distribution of work and the quality and extent of preparation for the program which the student proposes to undertake.

The minimum undergraduate grade average acceptable for admission to programs leading to the degrees of Master of Arts in Education, Master of Education, and Master of Physical Education and Health is 2.5, calculated on a basis of 4.0 as the highest possible average and covering the last two years of undergraduate work (at least 60 semester hours).

In the College of Agriculture, admission to graduate study is normally limited to those students who have maintained at least a 2.75 honor-point average in their upper-division work and 3.0 in their major subject. For students with an undergraduate major in general agriculture, the minimum upper-division average is 2.85. In exceptional cases, where a candidate has demonstrated in some other way his fitness to do graduate work, as, for instance, outstanding achievement since earning the bachelor's degree, he may be considered for admission.

GRADUATE RECORD EXAMINATION

A satisfactory average score on the Graduate Record Examination is required for admission. Each applicant for admission must submit scores on the aptitude test of the GRE, but either at the request of the department concerned or on his own volition, the applicant may submit in addition the score on one or more advanced subject-matter tests of the GRE. The scores on all tests taken will be weighed in regard to admission.

The GRE is given four times a year—in November, January, April, and July—at a great many locations in the United States, including Gainesville, Florida. To determine exact dates and the most convenient locations, students should write to The Educational Testing Service, Princeton, New Jersey. Applications are required several weeks ahead of the examination and scores are received about a month after the examination. Hence it is necessary to apply for the GRE in early October for admission in February, in early April for admission to the summer session or in September. Since the GRE is required for many fellowships and awards for which early application is necessary, the undergraduate student is advised to take the examination no later than January for awards effective in June or September.

Students enrolled in the Graduate School prior to establishment of the GRE requirement for admission (June, 1956) are permitted to complete the degree to which their work at that time was being applied. However, they must submit satisfactory GRE scores before admission to study for any other advanced degree.

Foreign Students.—Students educated in foreign countries who apply for admission while residing outside the United States may be given a postponement and permitted to take the GRE during the first semester of attendance at the University of Florida. Registration for a second semester will depend upon completion of the examination. All foreign students whose native language is not English will be required to take an examination during their first semester at the University to test their command of the English language. A student whose command of English is considered inadequate will be required to take one or more special courses in English for foreign students. These courses do not carry graduate credit.

Postponement of the GRE.—If a student applies for admission too late to take the GRE before his expected date of entry, two courses are open to him:

1. He may apply for acceptance as a fifth-year undergraduate student. If a student is accepted on this basis, he may request transfer to his graduate record of eligible work taken during one semester of registration in this status provided that he submits satisfactory scores on the GRE within one year of his acceptance in this status and is duly admitted to the Graduate School. Acceptance as a fifth-year undergraduate with the possibility of transfer of credit to the graduate record will be granted only in cases where the student's past record makes it probable that he will pass the GRE.

2. He may apply for admission to the Graduate School with postponement of the GRE and submit his score on the Miller Analogies Test to be used as a partial basis for deciding whether tentative admission of this type may be granted. It should be noted, however, that the Miller Analogies Test is not a substitute for the GRE. In cases where the GRE has been postponed it must be taken with satisfactory results before a second registration will be permitted.

The *Miller Analogies Test* is given at about 250 colleges and universities throughout the country and is administered by the University of Florida Board of Examiners, Room 405, Seagle Building, throughout the calendar year at 3:00 p.m. on Monday, Wednesday, and Friday. During the week prior to the first day of classes the test will also be offered at 10:00 a.m. on Monday and 3:00 p.m. on Tuesday and Thursday. Special appointments can be made by contacting the Board of Examiners. The cost of the test, $2.00, should be paid to the University Cashier, Room 2, Administration Building, and the receipt should be presented at the time of testing.

Test scores should be sent by the examining official to the Dean of the Graduate School. No student can be considered for postponement of the GRE until after his application for admission is complete and all his credentials have been received in the Office of the Registrar.

TRIAL PROGRAMS

The Graduate School approves two types of trial programs under fifth-year undergraduate registration for applicants whose admission or rejection for graduate study is in doubt. These programs are arranged by the major department when the student has been referred to it for this purpose by the Registrar. Trial programs shall be strictly reserved for genuinely problematical or borderline cases.

Type I (partly transferable): a program of about 15 semester hours consisting of advanced undergraduate courses and no more than 6 hours of graduate courses. Upon completion of the program with an average grade of "B" or better, up to 12 hours may be transferred to the student's graduate record, provided that this transfer is approved by his major department and college and that all other requirements for admission to the Graduate School have been met.

Programs of Type I are used where a student's previous grade record or GRE scores are on the borderline of acceptability.

Type II (nontransferable): a program of 15 or more hours of undergraduate work, none of which may be transferred to the student's graduate record.

Programs of Type II are used (1) to validate undergraduate records from nonaccredited and unevaluated colleges and in cases where the quantity or quality of the student's preparation cannot be determined with sufficient certainty for purpose of judging admission; (2) to repair extensive deficiencies in undergraduate programs which do not meet the prerequisites for graduate study laid down by the student's proposed major department (minor deficiencies of less than 12 hours and field transfer requirements covered by this catalog may be handled on a noncredit basis as part of the graduate program for students who meet admission standards).

If the trial program (of either type) is completed with an average grade of "B" or better and other admission requirements have been met, the student will upon recommendation of his major department and college be given unqualified admission to the Graduate School. To secure this change of status, the student should apply through his department head and college dean to the Registrar.

All trial programs must be formally approved by the major department and college and filed with the Registrar and the Graduate School in order that there may be no question in either of the latter offices concerning the termination of the program or of the courses to be used in calculating the grade average. Neither type of trial program may be continued beyond the prearranged termination.

ADMISSION TO A SECOND GRADUATE PROGRAM

A student who has completed a degree program in the Graduate School may not undertake an additional degree program without the approval of the head of the department in which he proposes to do his major work. GRE scores must be submitted by the student at the time he proposes an additional degree program even though they were not required at the time he started his previous degree program. It is particularly important that these scores and the other elements in the record and qualifications of the student be carefully weighed before he is permitted to undertake work for the doctor's degree.

UNDERGRADUATE REGISTRATION FOR GRADUATE CREDIT

An undergraduate student at the University of Florida who has less than one semester of course work to complete for the bachelor's degree may request, in writing, through the dean of his college, approval by the Dean of the Graduate School of course registration eligible for graduate credit. Such approval can be given only to students who have maintained a "B" average in the upper division and whose total proposed program does not exceed 15 semester hours in a single regular semester or 6 hours in a summer term. Commonly, courses to be approved should be of full graduate caliber; approval of an advanced undergraduate course will be restricted to one not normally a part of the undergraduate program prerequisite to the graduate studies to be undertaken. For application to a specific advanced degree the course work taken must be earned with a grade of "A" or "B" with all course work for the semester at "B" average, and be recommended for transfer to the student's graduate record by

his supervisory committee after he has been admitted to the Graduate School. Courses beyond the requirement for the bachelor's degree which are taken without such approval are not eligibile for transfer as graduate credit. Foundation work required for a change of major must be taken without graduate credit.

GENERAL REGULATIONS AND INSTRUCTIONS

STUDENT RESPONSIBILITY

It is the responsibility of the student to inform himself concerning, and to carry out, all regulations and procedures required by the course he is pursuing. In no case will a regulation be waived or an exception granted because a student pleads ignorance of the regulation or asserts that he was not informed of it by his adviser or other authority. The student should make himself especially familiar with (1) this section of the catalog, (2) the section presenting the requirements for the degree which he plans to take, and (3) the offerings and requirements of the department of his major.

Consultation with College and Department.—After the student has been admitted to the Graduate School but before his first registration, he should consult the college and department in which he will do his work concerning course requirements, deficiencies if any, the planning of a program, special regulations, etc. All registrations require the signature of the dean of the college in which the degree is to be awarded or of his representative.

LOADS

Maximum Registration.—The maximum registration permitted in a single semester is 15 semester hours. Part-time employment of any kind reduces the maximum study loads permitted to the amounts indicated in the following table:

Fraction of time Employed	Employment per Week (maximum)	Academic Load (maximum)	Residence Acquired (fraction of full semester)
⅓-time	15 hrs.	12 sem. hrs.	4/5
½-time	20 hrs.	10 sem. hrs.	2/3
¾-time	30 hrs.	6-7 sem. hrs.	1/2
full-time	40 hrs.	4 hrs. course work plus 2 hrs. thesis	2/5

During the summer session, full-time registration for a candidate for a thesis degree is 6 to 8 semester hours; full-time registration for a student in an Ed.S. program or in any non-thesis master's program except those leading to the M.A.T. or the M.S.T. is 9 semester hours. A graduate assistant may not exceed 6 semester hours during the summer session, and a full-time employee is limited to one course or 3 semester hours. These regulations apply to the 8-week summer term.

Minimum Registration.—Holders of fellowships and assistantships are required to register for graduate study programs commensurate with the study time permitted by their awards—in no case less than 6 semester hours during

the regular semesters. In the summer session, holders of fellowships and assistantships must register for a minimum of one course or 5 semester hours of thesis.

Veterans' Certification.—Students who are applying for veterans assistance under Public Law 550 and whose applications are otherwise acceptable to the Veterans Administration will automatically be certified by the Registrar as follows:

Regular Semester		Summer Session	
Certification	Registration	Certification	Registration
Full	14-15 hrs.	full	7-9 hrs.
¾	10-13 hrs.	¾	5-6 hrs.
½	7- 9 hrs.	½	4 hrs.
fees only	3- 6 hrs.	fees only	below 4 hrs.

Students who desire higher certification must submit through the Graduate School office the form "Certification of Study Load." The University Housing Office also requires this form for students with less than 9 hours' registration. Appropriate allowance in "equivalent semester hours" may be made on this form for preparation for language examinations or qualifying examinations or for other studies specifically required by the student's supervisory committee. Certification will be on the basis of the following proportions:

Certification	Minimum Study Load	Maximum Employment
full	12 hrs.	15 hrs. per week (⅓-time)
¾	9 hrs.	20 hrs. per week (½-time)
½	6 hrs.	30 hrs. per week (¾-time)
fees only	3 hrs.	full-time employee

Certification in the summer will be as follows:

Certification	Minimum Study Load	Maximum Employment
full	6 hrs.	15 hrs. per week (⅓-time) or 20 hrs. per week (½-time)
½	3 hrs.	20 hrs. per week (½-time) or 30 hrs. per week (¾-time)
Fees if applicable	3 hrs.	full-time employee

In cases where the supervisory committee classifies the work load as a contribution to the student's approved educational program, additional certification will normally be approved.

RESIDENCE

Specific residence requirements of individual degrees will be found in the sections dealing with these degrees.

In equating residence with registration, the ratio of 15 hours as the equivalent of full residence should be used by students who have part-time employment. In the case of students who are giving full time to their studies, a registration of 12 hours may be considered to represent full residence.

In some cases a student may be employed on a contract or sponsored project from which his thesis or dissertation will be drawn. Upon written recommendation of the supervisory committee, residence credit may be permitted for a portion of the time devoted to such research. All time devoted to routine duties or to research not related directly to the dissertation or thesis should be removed from consideration. In no case shall academic credit be allowed for more than *three-quarters of the total time* devoted to such project research. This restriction does not apply to research under an unrestricted tax exempt fellowship. The written recommendation of the supervisory committee must be made during the semester in which the work is done.

COURSES AND CREDITS

Courses numbered 500-599 are for fifth-year or other advanced undergraduate programs. Regulations as to the use of these courses in graduate programs, grading, and minimum class size will be the same as for courses in the 400 category. Courses numbered 600 and above are limited to graduate students. Courses numbered 700 and above are graduate courses primarily for advanced graduate students.

Undergraduate courses numbered 300 and above are acceptable for minor credit when taken as a part of an approved graduate program. Courses bearing numbers below 600 may not be used for graduate major credit unless they have been approved for this purpose by the Graduate Council. In any case, at least 50 percent of the minimum course work for any master's degree must be in courses numbered 600 or above.

Registration in the course numbered 699, Master's Thesis, may be from 0 to 6 hours, and in the course numbered 799, Doctoral Dissertation, may be from 1 to 12 hours in one semester. The total registration in 699 is limited to 12 hours but is unlimited for 799. Advisers should assign to registration in these courses the number of hours of credit appropriate to the planned work in research. Registration for zero credit hours should be assigned only in exceptional situations, since the registration should normally reflect the proposed program of research as well as of course work. On the assignment of credit for research which is a part of a student's employment as well as a contribution to his thesis or dissertation, see the section on *Residence* above.

Regulations governing the transfer of credit from other graduate schools will be found in the sections dealing with requirements for degrees.

A complete list of approved graduate courses appears in the section of this catalog entitled *Departmental Courses*. Departments reserve the right to decide which of these graduate courses shall be given in any semester or summer session. The published *Schedule of Courses* does not always include all graduate courses offered; the departments, therefore, should be consulted concerning available courses.

Correspondence and Extension Work.—No courses may be taken for graduate credit by correspondence, and except in programs for the M.Ed., M.A.E., and Ed.S., no extension courses, field laboratory courses, or workshops may be

used for graduate credit. For regulations governing the use of courses of these kinds in the degree programs named, see below, pages 61 and 68. Extension work taken at another institution (except Florida State University) may not be transferred to the University of Florida for graduate credit.

GRADES

Passing grades for graduate students in courses numbered below 600 are "A" and "B." Passing grades in courses numbered 600 and above are "A," "B," and "C"; however, "C" grades in courses numbered 600 and above count toward a graduate degree only if an equal number of credit hours in courses numbered 600 and above are earned with a grade of "A."

Admission to candidacy for a graduate degree and the award of such degree depends (among the other requirements) upon maintenance of an average grade of "B" for all work attempted in the major and minor fields. Any grade of "I" (incomplete) in the fields of the major and minor (or minors) must be removed by completing all required work, unless an honor-point average of 3.0 is maintained, including the hours of incomplete courses. Grades in courses numbered 699 and 799 are not considered in calculating these averages.

It is the responsibility of the thesis or dissertation director to submit a grade in 699 or 799. The grade may be any of the standard letter grades or it may be "I." If the grade of "I" is recorded, it should be changed to a regular letter grade as soon as the student has completed the work appropriate to the credit hours of registration in 699 or 799 and no later than the completion of the thesis or dissertation.

Unsatisfactory Scholarship.—Any graduate student may be denied further registration in the University or in his graduate major if his progress toward the completion of his planned program becomes unsatisfactory. Unsatisfactory progress has been defined by the Graduate Council as failure to maintain an accumulative grade average of "B" in *all work attempted* in the Graduate School.

CHANGE OF MAJOR

Graduate students already admitted for work in one department who wish to transfer to another department must apply through the office of the dean of their college and must have their credentials approved by the graduate selection committee having jurisdiction in the new department. The Dean of the Graduate School and the Registrar must be notified in writing, and the notification must carry the approval of both department heads and the college dean. If the change of department involves a change of college, formal application for change of college must be made through the office of the Registrar.

FOREIGN LANGUAGE EXAMINATIONS

In those degree programs where a foreign language examination is required, the following principles and procedures will apply in the administration of those examinations:

Each candidate, at the time of applying for a foreign language examination, shall present a certificate of admission to the Department of Foreign Languages.

This certificate shall bear the signature of his supervisory committee chairman (or department head if a committee has not been appointed) and shall state that he is believed to be prepared for the examination.

If he fails to pass a foreign language examination, the student shall present to the Graduate School, through his supervisory committee chairman, acceptable evidence that he has made a serious attempt to prepare himself for a re-examination. If the evidence is acceptable, the student will be given a certificate of admission, which must be presented to the Department of Foreign Languages before he will be permitted to take his re-examination.

The reading knowledge examination consists of a passage of general material selected by the Foreign Language Department. The use of a dictionary is permitted. Grading of the regular foreign language examination is handled by the Foreign Language Department, the objective being that the essential idea of each part of the passage be translated into acceptable English. The grade of each student taking an examination is transmitted to the Graduate School, together with the recommendation of the Foreign Language Department as to an acceptable grade. The Graduate Office will send the result of the examination to the college dean, the department head, the supervisory committee chairman, and the student.

PROCEDURE FOR FINAL SEMESTER

It is essential that the student inform himself concerning deadline dates as set forth in the *University Calendar* and in the announcements issued by the Dean of the Graduate School and by the officials of his college, school, or department.

Early in the last semester the student should make formal application to the Registrar for his degree. When his thesis is ready to be put in final form he should get instructions from the office of the Dean of the Graduate School. He must arrange through the University Bookstore for proper academic costume to be worn at Commencement.

Normally, students in the Graduate School must be registered in the University at the time they receive a degree. If, however, a student has completed all requirements for his degree, including courses, residence, thesis or dissertation, and all examinations, at the time of registration for the semester in which his degree is to be awarded the Graduate Council will consider a petition to waive this regulation. *In brief, a student must be registered for the semester in which his final examination is given.*

Attendance at Commencement.—Attendance at commencement exercises is required of those receiving advanced degrees. A request to receive the degree *in absentia* may be presented to the Dean of the Graduate School for referral to the President of the University, but only under extraordinary circumstances will it be granted. The petition must give a full explanation of the circumstances and must be submitted at least two weeks before commencement.

DEGREES OFFERED

NON-THESIS DEGREES

Master of Agriculture, with major in any field in agriculture

Master of Business Administration, with major in any field in business administration
Master of Education, with major in any field in education, including business education and industrial arts education
Master of Physical Education and Health, with major in physical education
Master of Rehabilitation Counseling
Master of Arts in Teaching, with major in any field in the College of Arts and Sciences
Master of Science in Teaching, with major in any field in the College of Arts and Sciences
Specialist in Education

THESIS DEGREES

Master of Science in Agriculture, with major in one of the following:

Agricultural Economics
Agricultural Education
Agricultural Engineering
Agronomy
Animal Husbandry
Bacteriology
Botany
Dairy Science
Entomology
Food Technology and Nutrition
Fruit Crops
Ornamental Horticulture
Plant Pathology
Poultry Husbandry
Soils
Vegetable Crops

Master of Science in Building Construction
Master of Science in Community Planning
Master of Science in Engineering, with major in one of the following:

Aeronautical Engineering
Chemical Engineering
Civil Engineering
Electrical Engineering
Engineering Mechanics
Industrial Engineering
Mechanical Engineering
Nuclear Engineering

Master of Science in Forestry
Master of Science in Pharmacy, with major in one of the following:

Pharmaceutical Chemistry
Pharmacognosy
Pharmacology
Pharmacy

Master of Science, with major in one of the following:

Bacteriology
Biology (Zoology)
Botany
Chemistry
Entomology
Geography
Geology
Mathematics
Physics
Plant Pathology
Psychology

Master of Fine Arts
Master of Arts in Architecture, with major in one of the following:

Architectural Design
Building Construction

Master of Arts in Education, with major in one of the following:

- Agricultural Education
- Business Education
- Educational Administration
- Elementary Education
- Foundations of Education
- Industrial Arts Education
- Personnel Services
- Secondary Education

Master of Arts, with major in one of the following:

- Accounting
- Economics
- English
- Finance and Insurance
- French
- Geography
- German
- History
- Inter-American Area Studies
- Latin
- Management and Business Law
- Marketing
- Mathematics
- Philosophy
- Political Science
- Psychology
- Real Estate
- Sociology
- Spanish
- Speech

Doctor of Education, with major in one of the following:

- Curriculum and Instruction
- Educational Administration
- Foundations of Education
- Guidance and Personnel Services

Doctor of Philosophy, with major in one of the following:

- Agricultural Economics
- Agronomy
- Animal Husbandry
- Bacteriology
- Biology (Zoology)
- Botany
- Chemical Engineering
- Chemistry
- Civil Engineering, including
  - Sanitary Engineering
  - Structural Engineering
- Economics
- Economics and Business Administration
- Electrical Engineering
- Engineering Mechanics
- English
- Entomology
- Fruit Crops
- Geography
- History
- Inter-American Area Studies
- Mathematics
- Medical Sciences, including
  - Anatomy
  - Biochemistry
  - Microbiology
  - Physiology
- Pharmacy, including
  - Pharmaceutical Chemistry
  - Pharmacognosy
  - Pharmacology
  - Pharmacy
- Physics
- Plant Pathology
- Political Science
- Psychology
- Sociology (Latin American)
- Soils
- Spanish
- Speech
- Vegetable Crops

REQUIREMENTS FOR MASTER'S DEGREES

GENERAL REGULATIONS

Residence.—For any master's degree the student must spend at least one full-time academic year, or equivalent, as a graduate student at the University of Florida.

If the work for the master's degree is done entirely in the summer, full-time study during four eight-week sessions will satisfy the residence requirement. This requirement may be reduced to (but not below) three eight-week summer sessions by transfer of work from another institution or by use of extension or other nonresident credit where accepted by the college concerned and by the Graduate Council.

Nonresident county agents in the Agricultural Extension Services may use three three-week summer sessions for the purpose of satisfying the residence requirement, for the degrees Master of Agriculture or Master of Science in Agriculture, but only if they have also spent one regular semester in full-time resident graduate study (or two eight-week summer sessions) on the campus at the University of Florida.

Transfer of Credits.—Courses of full graduate level to the extent of 6 semester hours may be transferred from an institution approved for this purpose by the Graduate School. Acceptance of transfer credit requires approval of the student's supervisory committee and the Graduate Council. Nonresident or extension work taken at another institution (with the exception of Florida State University) may *not* be transferred to the University of Florida for graduate credit.

Time Limit.—All work for the master's degree must be completed within seven years from the time of first registration.

MASTER'S DEGREES WITHOUT THESIS

Master of Agriculture

The degree of Master of Agriculture is designed for those students who wish additional training before entering business occupations or professions, rather than for those interested primarily in research. The basic requirements, including those for admission, residence, supervisory committee, plan of study, and admission to candidacy, are the same as for the Master of Science in Agriculture degree, as outlined, elsewhere, but the work requirements are made to conform to the specific objectives of this degree.

Work Required.—A minimum of 36 semesters hours of course work is required, at least 18 of which shall be designated strictly for graduates; if a departmental major is claimed, 12 of these 18 hours must be in the major department. Each student's program is designed to take into account the qualifications and needs of the individual and is subject to the approval of the supervisory committee. A thesis is not required, but the student must submit reports, term papers, and records of work accomplished.

A comprehensive written qualifying examination, given by the supervisory committee, is required before the beginning of the second semester of work. Failure

to qualify in this examination will require either the student's elimination from the program or additional course work. A *final oral examination* by the supervisory committee covering the whole field of study of the candidate is required.

For further details, inquire of the Dean of the College of Agriculture.

Master of Arts and Master of Science in Teaching

These degrees are designed for graduate students majoring in the departments of the College of Arts and Sciences who intend to teach in junior or four-year colleges. Requirements for admission are the same as for the regular M.A. and M.S. degrees in the College of Arts and Sciences, and, like the work for those degrees, programs leading to the M.A.T. and the M.S.T. may with proper approvals be incorporated into programs leading to the Ph.D.

The requirements for the degrees are as follows:

1. A reading knowledge of one foreign language.

2. Completion of the requirements for Florida Junior College Certification. The plan of certification most appropriate to these degrees is Plan III, which is stated as follows on page 258 of the *State Board Regulations Relating to Florida Requirements for Teacher Education and Certification* (revised and adopted October 1956):

The Applicant must

a. Hold a master's degree or higher.

b. Present credit in educational psychology, sociology (educational or community) and curriculum dealing with the junior college totaling at least 9 semester hours.

c. Present an internship carrying credit of at least 6 semester hours, or present three years of successful teaching experience.

d. Present 36 semester hours in the subject area in which certification is is sought with at least 12 semester hours at the graduate level.

3. Satisfactory completion of at least 36 semester hours of work while registered as a graduate student, this work to be distributed as follows:

21 semester hours in the major and minor (minimum for major: 12 hours; minimum for the minor: 6 hours);
6 semester hours in a departmental internship as described below:
9 semester hours in the studies prescribed in Item b of the state certification requirements. If any or all of these studies have been satisfactorily completed before the program is begun, the semester hours thus made available may be used for further work in the major or minor, in education, or in a thesis.

The internship will be organized as a total of 6 credit hours over two semesters (under the direction of the major department) in which the student will (1) attend a seminar on the problems, methods, and duties of the college teacher of the student's major subject, (2) assist a professor approved for the

purpose by the department head in conducting a course throughout a semester, this assistance to include teaching under observation at least one-third of the classes in the course, attendance at the remaining classes, preparing and grading examinations, and participation in all other essential activities which the organization and administration of the course may entail, (3) attend faculty meetings and be given practice in all the essential activities involved in being a college teacher of his subject.

Master of Business Administration

The requirements for the Master of Business Administration degree have been designed to give the student broad general preparation for managerial work with emphasis upon developing his capacities and skills for making business decisions. Limited specialization in one or two fields is also possible.

Admission Requirements.—Completion of a minimum of 30 semester hours of undergraduate work in business administration and economics, including the following:

Economic Principles	6 semester hours
Statistics	3 semester hours
Accounting—Introductory	6 semester hours
Business Law	3 semester hours

ATG. 590—Survey of Accounting (3 semester hours) may be taken in lieu of the 6 semester hours of introductory accounting. At least 15 hours of the undergraduate courses, excluding ATG. 590, must be in junior-level courses or higher.

Students who have had no previous work in business administration or economics will be required to take a foundation program of at least 30 semester hours meeting the requirements stated above.

Course Requirements for Degree.—A program of 30 semester hours of course work is required. This program is as follows:

1. All candidates are required to take

BS. 679 Advanced Business Policy	3 semester hours
BS. 690 Business Research and Reports	3 semester hours
ES. 615 Economics of Business Decisions	3 semester hours
ES. 616 Economic Environment of Business	3 semester hours

2. Unless waived because of acceptable undergraduate courses taken in the same area, all candidates are required to take

BS. 610 Managerial Accounting	3 semester hours
BS. 664 Managerial Statistics	3 semester hours
BS. 671 Human Relations in Business	3 semester hours

3. All candidates in the fields of marketing, production management, and corporation finance must complete at least one basic course in each of the fields of marketing, production management, and corporation finance. Such courses may be taken as a part of either the undergraduate or graduate program within the limits noted. Candidates deficient in marketing will

take MKG. 531, Marketing Principles and Institutions (3 semester hours). Candidates deficient in production management will take MGT. 575, Production Management Problems (3 semester hours). Candidates deficient in corporation finance will take FI. 427, Corporation Finance (3 semester hours). Of these three courses, only MGT. 575 and one, but not both, of the other two courses may be used in satisfying the 30-hour requirement for the degree. Thus, a student who is deficient in all three fields or in both marketing and corporation finance will have to complete 33 hours for the degree.

4. Electives: The remaining hours will be selected from graduate and advanced undergraduate courses in the candidate's field or fields of interest. A candidate should avoid undue specialization in the selection of his electives.

Examinations.—Each candidate will be required to pass both a written and oral examination on his graduate work. The written examination will be given toward the end of the semester in which he expects to receive his degree and will be designed to test his ability to deal with the problems normally confronting business administrators. It will consist primarily of the analysis of a business case requiring the use of the various disciplines included in the curriculum. The oral examination will be given after the written and will be administered by a committee of three appointed from the graduate faculty of the College of Business Administration.

Master of Education

Purpose.—This degree is designed to increase the professional preparation of school personnel. The program has been planned to develop in public school workers a wide range of essential abilities and to give a background of theory.

Description.—The Master of Education degree is offered under two plans. Plan I is for secondary and junior college teachers who seek increased teaching skill and greater depth and scholarship in their teaching field. It is offered in the departments of Foundations of Education, Secondary Education, including Business Education, and Vocational Agriculture.

The minimum program for the M.Ed. under Plan I is 36 hours of course work above the 300 level, 18 of which must be at the 600 level or above, with 18 hours of course work outside the College of Education for students who have graduated from departments or colleges of education or who hold a regular Florida Graduate Certificate to teach. (For students who have graduated from colleges other than education, the total number of hours outside of education may not be less than 6 hours.) The minimum requirement of course work in education under Plan I is either (1) 24 hours in the master's program with 18 hours at the 600 level or above, or (2) 36 hours at any level in the combined undergraduate and graduate program. For students with an undergraduate major in education the minimum number of hours in education is 12.

Plan II is used for specialized school personnel and elementary and industrial arts teachers and is offered in the departments of Educational Administration, Elementary Education, Industrial Arts Education, and Personnel Services.

The minimum program for the M.Ed. under Plan II is 36 hours of course work above the 300 level, 18 hours of which must be at the 600 level or above, with a minimum of 6 hours of course work outside the College of Education. The student's undergraduate and graduate program must include a minimum of 36 hours of course work in education.

Work Required.—Each student is required to submit a plan of study which shows acceptable balance and direction. The planned program is approved by the student's counsellor, the department head, and the Office of Graduate Studies in Education. After the program has been developed, any changes must be requested in writing and similarly approved.

Transfer of Credits.—If recommended in advance by the graduate committee and approved by the Dean of the Graduate School, a student may be permitted to study in other institutions to the extent of (but not to exceed) 6 semester hours. No graduate credits earned prior to admissions to the University may be transferred without special recommendation of the graduate committee and the approval of the Graduate Council. No more than 6 semester hours of credit may be thus transferred.

Extension and Field Laboratory Courses.—Six hours of approved extension courses may be included in the student's planned program. Six additional hours of courses designated as field laboratory courses (ED. 682, EDF. 644, and EDF. 645) may also be included with the approval of the counselor.

Limit on Off-Campus Work.—The University imposes a limit of 12 hours of credit in the aggregate on work allowed from (1) off-campus workshops and extension courses, (2) field laboratory courses, and (3) courses transferred from other institutions.

Admission to Candidacy.—Admission to candidacy for the Master of Education degree is recommended to the Graduate Council by the graduate committee of the College of Education on the basis of an unassembled examination to be given at the end of from 12 to 18 semester hours of graduate work at the University of Florida.

The unassembled examination includes: (1) the student's academic record to date, (2) the student's GRE scores (3) evidence of competency in the use (oral and written) of the English language, (4) evaluation of personal qualities and promise of professional attainment by persons to whom the applicant's record is known, (5) the student's experience record, and (6) other appropriate information.

The unassembled examination is administered through the Office of Graduate Studies in Education for the graduate committee and evaluated by a committee of the faculty, which may recommend supplementary oral and/or written examinations for students whose admission to candidacy is in doubt.

The student's remaining program of study may be revised if needed after the Admission to Candidacy Examination. On approval of the graduate committee, the candidate will be recommended for the degree upon the satisfactory completion of the designated course work.

The candidate must have completed at least one year of teaching (or the equivalent) prior to taking the last 6 semester hours of work, or must have included in his record the satisfactory completion of an internship program or a minimum of 6 semester hours of student teaching.

The Graduate Committee of the College of Education.—A special counselor is appointed for each student in the Master of Education program. His work is under the general supervision of the graduate committee in the College of Education.

Master of Physical Education and Health

Work Required.—A minimum of 30 semester hours of course work is required, at least 18 of which must be courses in the fields of physical education, health education, or recreation designated strictly for graduates, or courses numbered 500 and above if approved for graduate major credit. Of the remaining 12 hours, at least 9 semester hours must be taken in courses outside the College of Physical Education and Health. At least 50 per cent of the minimum course requirements shall be from courses numbered 600 and above. The major for the degree is physical education.

All degree candidates must complete Florida teaching certification requirements in physical education by the conclusion of the master's degree program. Certification requirements must be met as a part of and/or in addition to degree requirements, if not already completed before admission to graduate study.

Supervisory Committee.—A committee of five members of the faculty of the College of Physical Education and Health, with the dean of the College, or some person designated by him, serving as chairman and the Dean of the Graduate School as an ex officio member, will supervise the work of students registered in this program, subject to the approval of the Graduate Council.

Admission to Candidacy.—Admission to the work of this program is not a guarantee that the student will be admitted to candidacy for the degree. The student will be required to pass a written and/or oral examination in addition to being recommended by the supervisory committee for admission to candidacy. This examination should be taken by the end of the student's first semester of residence.

Final Examination.—A thesis is not required but the candidate must pass a final examination at the close of his course work. This written and/or oral examination will be administered by the supervisory committee and will be confined largely to the student's major field of study.

Master of Rehabilitation Counseling

The interdisciplinary program leading to the degree of Master of Rehabilitation Counseling is designed to give students basic knowledge and professional skills essential to the rehabilitation of physically and mentally handicapped persons. The diversity of activities performed by individuals in the various state, federal, and private agencies who bear the designation of rehabilitation counselor necessitates a program that permits a basic foundation in counseling and guidance and, at the same time, allows for a sound preparation in the medical, socio-psychological, and vocational implications of disability. The fundamental purpose of the program, therefore, is to present a systematic and integrated study of the basic knowledges and skills needed by the rehabilitation counselor. Two basic qualifications are necessary for successful completion of the program: (1)

the academic ability to accomplish the course requirements with satisfactory performance, and (2) the ability to work effectively with disabled people in a counseling relationship.

Work Required.—The minimum requirement is 36 semester hours, of which 18 hours represent required work in rehabilitation courses and an internship. An additional minimum of 18 hours is selected from designated courses; i.e., 6 hours in each of the following areas: (1) statistics and measurement, (2) personality development, and (3) counseling. The selection of the 6 hours in each of the three areas is made on the basis of meeting the individual needs of the student and is subject to the approval of a supervisory committee. Students who have previous education in one or more of these areas will be permitted to substitute other appropriate courses. Those who lack previous educational background in these areas will be required to take additional work before undertaking this program. At least 50 per cent of the minimum course requirements shall be from courses numbered 600 and above.

AREA I—STATISTICS AND MEASUREMENT—6 HOURS

Core Offerings	*Elective Offerings*
PSY 503 Essentials of Psychological Testing	PSY 504 The Measurement of Personality
EDF 360 Elementary Statistical Methods in Education	PSY 512 Individual and Group Differences
EDP 613 Personnel Testing	PSY 603 Statistical Methods: Inference
PSY 631 Practice in Intelligence Testing	PSY 604 Statistical Methods: Correlation
	EDF 450 Measurement and Evaluation in Education
	EDF 660 Educational Statistics

AREA II—PERSONALITY DEVELOPMENT—6 HOURS

Core Offerings	*Elective Offerings*
PSY 410 Abnormal Psychology	PSY 308 Developmental Psychology
PSY 509 Theories of Personality	APY 503 Culture and Personality
EDF 641 Educational Psychology—Personality Dynamics	PSY 635 Introduction to Psychological Readjustment

AREA III—COUNSELING—6 HOURS

Core Offerings	*Elective Offerings*
PSY 612 Introduction to Psychological Diagnosis	EDP 611 Occupational Information

PSY 637 Personal Counseling

EDP 610 Principles of Guidance

EDP 612 Techniques of Guidance

EDP 614 Case Studies in Counseling

PSY 613 Children's Behavior Disturbances

PSY 614 Vocational Appraisal

Policy Committee.—A committee of five members of the faculty representing the College of Health Related Services, Department of Psychology, College of Medicine, and College of Education, with the professor in charge of rehabilitation counseling serving as chairman and the Dean of the Graduate School as an ex-officio member, will determine policy and, in general, supervise the work of students registered in this program.

Admission to Candidacy.—Admission to the work of this program is not a guarantee that the student will be admitted to candidacy for the degree. When a student has completed 12-15 semester hours of graduate work at the University of Florida, he is required to apply for admission to candidacy for the degree using the forms provided by the office of the Dean of the Graduate School. Admission to candidacy for the Master of Rehabilitation Counseling degree will be recommended to the Graduate Council by a supervisory committee of the College of Health-Related Services on the basis of a review of his work, his personal traits, and any other appropriate information to determine his eligibility to proceed further toward the degree program.

Final Examination.—A thesis is not required for the degree Master of Rehabilitation Counseling, but the candidate must pass a final examination at the close of his course work. This written and/or oral examination will be confined largely to the student's major field of study.

MASTER'S DEGREE WITH THESIS

Required Registration.—The minimum registration required for the master's degree with thesis is 30 semester hours, including no less than 24 semester hours of regular course work and 6 semester hours of the thesis course numbered 699 in all departments.

At least one-half of the required 24 hours of regular course work must be in a single field of study designated the major, and the remainder, called the minor, must be in a different but related subject matter. One 6-hour minor is required; two 6-hour minors or one 12-hour minor may be taken. Minor work must be in a department other than the major. In special cases this requirement may be modified, but only with the written permission of the Dean of the Graduate School.

The work in the major field must be in courses designed strictly for graduates (numbered 600 and above) or in undergraduate courses designated by the Graduate Council as available for graduate major credit. For the minor, courses numbered 300 and above may be taken.

At least 50 per cent of the required 24 semester hours of regular course work must be in courses numbered 600 and above. Registration in 699 is limited to a total of 12 semester hours.

Thesis.—All candidates for this degree are required to prepare and present a thesis (or equivalent in creative work) acceptable to their supervisory committees, the Dean of the Graduate School, and the Graduate Council. The candidate should consult the Graduate School office for instructions concerning the form of the thesis. The original copy of the thesis, bound in temporary bind, and accompanied by three copies of a brief abstract, must be in the Dean's office on or before the dates specified in the *University Calendar*. After the thesis is accepted, the original copy, together with the first carbon copy, will be deposited in the University Library.

Language Requirement.—(1) The requirement of a reading knowledge of a foreign language is left to the discretion of the student's supervisory committee or college. When a foreign language is required, the examination will be conducted by the Department of Foreign Languages; if an examination has already been passed at another institution, it must be validated at the University of Florida by the Department of Foreign Languages. If the student is majoring in a foreign language, that language may not be used to satisfy this requirement. The foreign language requirement must be satisfied before the student is admitted to candidacy. (2) The ability to use the English language correctly and effectively, as judged by the supervisory committee, is required of all candidates.

Special Supervisory Committee.—A special supervisory committee of not fewer than three members will be appointed for each student by the Dean of the Graduate School upon the recommendation of the college concerned. This committee should be appointed as early as possible after the student has been admitted to the Graduate School and, in general, not later than the end of the first semester of study. The Dean of the Graduate School is an ex officio member of all supervisory committees. The duties of the special supervisory committee are to advise the student, to check on his qualifications and progress, to supervise the preparation of the thesis, and to conduct the final examination.

Admission to Candidacy.—When a student has completed about one-half of his work for his degree, he should apply for admission to candidacy for that degree, using the forms provided by the office of the Dean of the Graduate School. In order to be admitted to candidacy, the student must have (1) maintained a "B" average in registered course work, (2) passed a foreign language examination and a qualifying examination (if these are required in his curriculum), (3) chosen his thesis topic, (4) satisfied his supervisory committee, department head, and college dean that he is qualified to become a candidate for his degree. It is the responsibility of his supervisory committee at this time to make such investigation as is necessary to determine his eligibility.

General Examination.—When all of the student's work is completed, or practically so, including the regular courses and the thesis, his supervisory committee is required to examine him orally or in writing or both on (1) his thesis, (2) his major subject, (3) his minor or minors, and (4) matters of a general nature pertaining to his field of study. Using the form provided for the purpose the committee shall report in writing to the Dean of the Graduate School not later than one week before the time for conferring of the degree whether all work has been completed in a satisfactory manner and whether on the basis of the final examination the student is recommended for his degree. In no case may

this examination be scheduled earlier than six months before the degree is to be conferred, without special approval of the Graduate Council.

Special Thesis Abstract Required.—At the request of the State Department of Education of the State of Florida, the College of Education requires all candidates for the degree of Master of Arts in Education to prepare a 750-word abstract of the thesis, which is forwarded to the State Department for informational purposes.

Master of Fine Arts

The degree of Master of Fine Arts is designed primarily for those who wish to prepare themselves as teachers of art in colleges and universities. It is the highest degree granted in the studio fields of the fine arts. Two years' residence is normally required for completion of requirements. Specialization is offered in painting, print making, and/or sculpture.

The requirements for the M.F.A. are the same as those for other master's degrees with thesis except as follows:

1. The minimum registration required is 48 credits, including no less than 42 credits in regular course work and 6 credits in ART 699—Master's Thesis.

2. The course work must include ART 500—Methods of Research and Bibliography (2 credits), a minimum of 6 additional credits in the history and theory of art, and a minimum of 6 credits in a minor field. The remaining credits will be in advanced studio courses in drawing, painting, print-making, and/or sculpture.

REQUIREMENTS FOR THE Ed.S. AND Ed.D.

THE ADVANCED SCHOOL OF THE COLLEGE OF EDUCATION

The Advanced School of the College of Education offers the degrees of Specialist in Education and the Doctor of Education. Work in the Advanced School will be available only to those who have shown a high degree of ability in their first year of graduate work. The purpose of the Advanced School is to develop leadership, research competency, and specialization.

Admission to the Advanced School in Education.—Admission to the Advanced School will be open only to persons who have:

1. Successfully completed 36 hours of professional course work in education.

2. Presented a record of successful professional experience, the appropriateness of which will be determined by the instructional department passing on the applicant's qualifications for admission. (In some instances, departments may admit students with the understanding that further experience may be required before the student will be recommended for the degree.)

Admission to the Advanced School will be based on the following criteria:

1. High scholastic average during the fifth-year work (3.5 honor-point average or above, as computed at the University of Florida, will be considered evidence of good scholarship).
2. Results from the GRE—Scholastic Aptitude and Advanced Education Tests.
3. Results from the Miller Analogies Test.
4. An oral examination administered by the department in which the student seeks to specialize.
5. Special interviews for individuals for whom the department of specialization seeks more data.

The judgment concerning admission of an individual student will be based on the consideration of his performance in all of these areas by the department in which the student desires to specialize. The department will certify to the admissions committee that the student has met the criteria for admission to the Advanced School.

In all cases the record, experience, and personal qualifications of the person applying for admission are subject to the approval of the admissions committee.

Where possible, students should seek admission to the Advanced School before enrolling in any courses beyond the master's degree. Where this procedure is impossible, the student will register in the Graduate School, and during, the first semester of his work beyond the master's degree, will apply for admission to the Advanced School. If such candidate is found to be eligible, appropriate work taken during that term will be included in the planned program.

After completion of the fifth year any student approved by the admissions committee may register for courses, but admission to the Advanced School must be obtained before work may be counted for degrees or certificates above the master's level.

Specialist in Education

The Ed.S. degree is awarded at the completion of a 36-hour planned program beyond the master's. Primary emphasis in an Ed.S. program is placed on the development of the competencies needed for a specific job.

Eleven types of Ed.S. programs are available in the Advanced School of the College of Education. They are: administration, agricultural education, audio-visual, educational psychology and human growth and development, elementary education, high school teacher, industrial arts, junior college teacher, personnel services, research specialist in education, and supervision.

A student who wishes to work for a degree in one of these programs must be admitted to the Advanced School and be accepted by the appropriate departmental admission committee.

The 36-hour program of each student must include 24 hours of course work open only to graduate students. Course selection is made by the student and his counselor from available courses which will contribute to the development of the competencies needed for the specific position the student seeks.

A maximum of 6 hours of transferred credit may be included. Such work must have been completed in an institution which offers the doctor's degree.

No extension work may be transferred. Up to 6 hours in appropriate field laboratory courses, or 3 hours in field laboratory and 3 hours in regular extension courses offered by the General Extension Division of the University of Florida and Florida State University may be included.

A thesis is not required. Emphasis is placed upon the use of research rather than upon the development of skills in research techniques.

Admission to the Advanced School, the successful completion of one semester of work, and the approval of the department of specialization are required for admission to candidacy for the Specialist in Education degree.

At the end of the 36-hour program the student is given a final written and a final oral examination by a committee selected by the head of his area of specialization. After he has passed the examination the candidate is awarded the Specialist in Education degree upon the approval of the faculty and the Graduate Council.

The Ed.S. is planned as a terminal degree. If at the end of his program the student wishes to work for the Ed.D. he must meet the requirements stated for that degree.

All work for the Specialist in Education degree must be completed within seven years from the time of the first registration.

Doctor of Education

The Doctor of Education degree is offered in administration and supervision, curriculum and instruction, foundations of education, and guidance and personnel services. Each doctoral candidate is expected to achieve understanding of the broad field of education and competencies in the area in which he chooses to specialize. A limited number of credits in physical education may be used as part of the major.

Administration of the program leading to this degree is cared for through the Office of Graduate Studies in Education, which carries out the policies of the Graduate School and the graduate committee of the College of Education.

Admission to a program of work leading to the degree of Doctor of Education requires admission to the Advanced School of the College of Education, described previously, as well as admission to the Graduate School.

All courses beyond the master's degree taken at another institution, to be applied toward the Doctor of Education degree, must be taken at an institution offering the doctor's degree and approved for transfer of graduate credit by the Graduate School of the University of Florida.

Minors.—Minor work, or work in cognate fields is required. If one minor is selected, at least 18 hours of work therein will be required; if two minors are chosen, one must have at least 12 hours of course work, the other at least six. Minors may not be taken in any branch of education or in the College of Physical Education and Health.

Courses in physical education approved by the College of Physical Education and Health and the Graduate School as subject matter or content courses may be used in the cognate work.

In lieu of a minor or minors, the candidate may present a suitable program of not less than 18 hours of cognate work in at least two or more departments outside the College of Education. If two fields are included, there shall be no

fewer than 6 semester hours in each field. If there are three or more fields included, the 6-hour requirement for each field does not apply. This program must have the approval of the student's supervisory committee. The College of Education faculty will expect the candidate to be prepared to answer questions, at the time of his oral examination, in any of the areas so chosen.

Admission to Candidacy.—Admission to candidacy for the degree of Doctor of Education rests on successful completion of the qualifying examinations. Recommendation to the Graduate School for admission to candidacy is based on the action of the supervisory committee, subject to the approval of the graduate committee of the College of Education.

The Qualifying Examination.—The applicant is recommended for the qualifying examination by his supervisory committee after he has completed sufficient course work and the research preparation requirements of the College of Education.

The examination administered by the graduate committee of the College of Education consists of (1) a general section; (2) a field of specialization section; (3) examination in the minor or minors, where involved; and (4) an oral examination conducted by the applicant's supervisory committee.

Re-examination.—If the student fails in his qualifying examination, he will not be given a re-examination unless such an examination is recommended for special reasons by his supervisory committee and approved by the Graduate Council. At least a semester of additional preparation is considered essential before re-examination.

The Seminar.—Each student is required to develop a thesis project to be considered by a general doctoral seminar in the college. Participants in the seminar will be faculty members of the college, other advanced students, and members of the supervisory committee. The student must pass the qualifying examination before scheduling the seminar.

Research Preparation Requirement.—This requirement is satisfied by meeting the requirements in both Groups 1 and 2 below:

Group 1.—(1) a course in education research (EDF. 760) and

(2) the library usage examination (usually given in connection with EDF. 760, and

(3) a basic course in statistics (EDF. 360, or PSY. 211, or MS. 310).

Group 2.—either

(1) a reading knowledge of one foreign language relevant to the student's need, *or*

(2) one of the following courses in measurements, statistics, or research: SY. 547 or SY. 670; EDF. 660 or PSY. 605; EDS. 605 or EDE. 702; EDF. 450; EDP. 613; PSY. 503, PSY. 504, PSY. 626, PSY. 632, PSY. 633, or PSY. 743; PHA. 604 or PHA. 510.

There is no language requirement for the Doctor of Education degree. Courses taken at other institutions which may be the equivalent of course requirements indicated above may be considered, on recommendation of the applicant's supervisory committee.

Abstracts.—For the purpose of inclusion in a summary of research studies in Education, published by the College of Education, the candidate must supply one 1500-2500 word abstract of his dissertation, in addition to such other abstracts as may be required by the Dean of the Graduate School.

For information relating to *Residence*, the *Supervisory Committee*, *Time Limit*, the *Dissertation*, *Publication of the Dissertation*, and the *Final Examination*, the student is referred to the material presented under the heading *Doctor of Philosophy*. These statements are applicable to both degrees.

REQUIREMENTS FOR THE Ph.D.

COURSE REQUIREMENTS

Doctoral study consists of the independent mastery of a field of knowledge and the successful prosecution of research. For this reason, doctoral students are thrown, in large measure, on their own responsibility, and doctoral programs are more flexible and varied than those leading to lower degrees. The Graduate Council does not specify just what courses will be required for the Ph.D. degree, or how many. The basic general requirement is that the program should be unified in relation to a clear objective and that it should have the considered approval of the student's supervisory committee.

Major and Minor.—The student working for the Ph.D. must elect to do his major work in a department specifically approved for the offering of doctoral courses and the supervision of dissertations. These departments are listed on page 56 of this catalog. In addition, the student must choose one or two departmental minors. Minor work may be completed in any department approved for master's or doctor's degree programs, as listed in this catalog.

If one minor is chosen, the representative of the minor department on the supervisory committee should suggest from one to two semesters of course work (12 to 24 semester hours) as preparation for a qualifying examination. Of course, a part of this background may have been acquired in the master's program. The satisfaction of the requirement concerning the minor or minors should be in terms of an examination conducted by the minor department rather than in terms of rigorously specified course work.

SUPERVISORY COMMITTEE

The supervisory committee for a candidate for the degree of Doctor of Philophy should consist of at least five members. At least three members should be from the college or department recommending the degree, and one or two members should be drawn from a different educational discipline for the purpose of representing the student's minor or minors and futhering the coordination on this campus between colleges and disciplines. Supervisory committees are nominated by the department head (in no case by the student), approved by the dean of the college, and appointed by the Dean of the Graduate School. It is recom-

mended that the supervisory committee be appointed as early as possible after the student has been admitted to doctoral work and in general not later than the end of the first semester of study. The Dean of the Graduate School is an ex officio member of all supervisory committees.
The duties of the supervisory committee are as follows:

1. To inform the student of all regulations governing the degree sought. It should be noted that this does not absolve the student from the responsibility for informing himself concerning these regulations. (See *Student Responsibility.*)

2. To meet immediately after appointment to pass on the qualifications of the student and to discuss and approve a program of study for him.

3. To meet to discuss and approve the proposed dissertation project and the plans for carrying it out.

4. To conduct the qualifying examination, or, in those cases where the examination is administered by the department, to take part in it.

5. To meet when the work on the dissertation is at least one-half completed to review procedure, progress, and expected results and to make suggestions for completion.

6. To meet when the dissertation is completed to conduct the final oral examination and to satisfy itself that the dissertation is a piece of original research and a contribution to knowledge.

LANGUAGE REQUIREMENT

Language Reading Examinations.—(1) Except as noted below a reading knowledge of two languages other than English is required. The primary language must be German, Russian, or French, the choice to be made by the supervisory committee on the basis of the usefulness of the language in the student's field of research.

(2) The secondary language, as approved by the supervisory committee, may be from a list of languages adopted by the Graduate Council in which reading knowledge examinations are administered by the Department of Foreign Languages. Currently this list includes Bulgarian, Czech, Danish, Dutch, French, German, Classical Greek, Modern Greek, Hungarian, Italian, Latin, Norweigian, Polish, Portuguese, Rumanian, Russian, Slovakian, Spanish, and Swedish. Under this provision, however, both languages may not be Romance. Proficiency in a language not listed here may be demonstrated by scholarly translation as explained below.

All language examinations are given and certified by the Department of Foreign Languages under policies and procedures stated above on page 53. If a student is majoring in a foreign language, he may not use that language to satisfy this requirement.

Functional Examination in Language.—A doctoral student, with the approval of his supervisory committee, shall have the privilege of taking a functional language examination (reading, writing, and speaking) in French,

German, or Russian as an alternative to the primary and secondary language reading examinations. For students whose studies are related to the Latin-American area the supervisory committee may approve examinations in any two Romance languages provided that one covers a functional knowledge.

Substitution of Scholarly Translation for a Secondary Language Examination.—Some languages not listed above as approved by the Graduate Council for examination as a secondary language may offer sufficient scholarly material in the special field of the student's major or minor to be acceptable for substitution. After obtaining formal approval of the supervisory committee the student may demonstrate proficiency in one of these languages or in any secondary language by translation from that language into English one or more published works *of scholarly or research value in the student's major or minor fields* in amount equivalent to not less than fifty printed pages of average book size. *This material should form useful background in relation to a graduate-level course, an assigned problem, or the dissertation;* and its scholarly or research value must be certified by the chairman of the supervisory committee with the approval of the committee. The acceptability of the English used in the translation must be certified by the Department of English. The work of translation shall be supervised by the chairman of the supervisory committee to the extent that he shall be prepared to certify to the Graduate Council that the student prepared the translation without linguistic assistance in either of the languages involved other than that provided by dictionaries, grammars, and other such works of reference. The Graduate Council shall reject claims for this language option if in its opinion the subject matter presented is not of a sufficiently high level of scholarship or if the translation is not presented in clear, grammatical English. If the student's English is at fault, he may be advised to undertake remedial work. The completed translation shall be filed with the Graduate School.

Substitution of Mathematics for a Secondary Language Examination.—In certain departments individually approved by the Graduate Council (business administration, agricultural economics, and animal husbandry and nutrition), a study of mathematics may be substituted for a reading knowledge of one foreign language. When this substitution is chosen, the courses in mathematics taken for this purpose may not be considered a part of the major or minor studies. The degree of proficiency in mathematics shall be determined as follows:

1. For a field in which calculus is not included through the master's degree, the student shall take and pass with a "B" or better the final examination in MS. 354 and any other courses in the Department of Mathematics specified by his supervisory committee.

2. For a field in which calculus is included as a part of the bachelor's or master's program, the student shall either pass with a "B" or better, or demonstrate equivalent proficiency by written examination in 6 semester hours of work in the Department of Mathematics which requires MS. 354 as a normal prerequisite.

Dates for Completion of Language Requirement.—The language requirement should be met as early as possible in the student's program and must be met before the student can be admitted to the qualifying examination. The Depart-

ment of Foreign Languages offers special noncredit classes in the reading of French and German for graduate students. (See the *Schedule of Courses.*)

RESIDENCE

The minimum residence requirement is three academic years of full-time resident graduate study, or equivalent, at institutions approved by the Graduate School. Either the second or third academic year of the three-year program must be spent in full-time study (except as noted in the following paragraph) on the campus of the University of Florida. Candidates in agronomy, animal husbandry, horticulture, plant pathology, and soils may do their research at certain branch stations of the University of Florida Agricultural Experiment Station where adequate staff and facilities are available.

In calculating residence, part-time study is evaluated on the basis of 15 semester hours as equal to a full load. Part-time study may be substituted for the year of full-time study stipulated in the preceding paragraph in either of the following proportions: (1) 30 semester hours earned in one calendar year; (2) 35 semester hours in four successive registrations (either including or excluding summer session registrations). An overload program, even when approved, will be valued as a normal program in meeting this residence requirement.

Between the qualifying examination and the conferring of the degree, there must elapse a minimum of one academic year if the candidate is in full-time residence, or one full calendar year if the candidate is on less than a full-time basis.

QUALIFYING EXAMINATION

The qualifying examination, which is required of all candidates for the degree of Doctor of Philosophy, may be taken during the second term of the second year of graduate study. The examination, conducted by the special supervisory committee, with the aid of the major and minor departments, is both written and oral and covers the major or minor subjects. The supervisory committee has the responsibility at this time of deciding whether the student is qualified to go on with work toward the Ph.D. degree.

If the student fails in his qualifying examination, he will not be given a re-examination unless such an examination is recommended for special reasons by his supervisory committee and approved by the Graduate Council. At least a semester of additional preparation is considered essential before re-examination.

Time Limit.—All work for the doctor's degree must be completed within five calendar years after the qualifying examination, or this examination must be repeated.

ADMISSION TO CANDIDACY

A graduate student does not become an actual candidate for the Ph.D. degree until he has been formally admitted to candidacy. Such admission requires the approval of the student's supervisory committee, the head of his department, his college dean, and the Dean of the Graduate School, and the approval must be

based on (1) the academic record of the student, (2) the opinion of his supervisory committee concerning his over-all fitness for candidacy, and (3) a qualifying examination as described above. Application for admission to candidacy should be made at about the end of the second or the beginning of the third year of graduate study.

DISSERTATION

A satisfactory dissertation showing independent investigation and research is required of all candidates. Since all doctoral dissertations will be published by microfilm, microcard, or printing, it is necessary that the work be of publishable quality and that it be in form suitable for publication. The original copy of the dissertation must be presented to the Dean of the Graduate School on or before the date specified in the *University Calendar*. The sum of $50 must be deposited with the Business Manager to cover the cost of publication as explained below.

Publication of Dissertation.—Candidates for the Ph.D. and Ed.D. degrees may choose one of the following three alternatives in the publication of their Dissertations:

1. Microfilm publication. In this case the University will refund $25 of the deposit as soon as the dissertation has been accepted and the final examination passed.

2. Microcard publication. In this case the University will determine the cost of publication and either return any unneeded portion of the deposit or bill the student for any excess in cost above $50.

3. Two-year postponement. The student may request a two-year period to investigate possibilities of publication by printing. If the dissertation is published as a book or monograph in essentially complete form, the Graduate Council will consider a request for refund of the entire deposit upon receipt of five copies of the published work. At the end of the two-year period, unless evidence of acceptance of the dissertation for such publication has been presented, the Graduate Council will authorize publication by microfilm as indicated under (1) above.

Copyright.—Under (1) above the student may choose to copyright his thesis before publication. The charge involved will be deducted from the $50 deposit before refund is made.

FINAL EXAMINATION

After the acceptance of the dissertation and the completion of all other prescribed work for the degree, but in no case earlier than six months before the conferring of the degree, the candidate will be given a final examination, oral or written or both, by his supervisory committee. Satisfactory performance on this examination completes all requirements for the degree.

SPECIAL PROGRAMS

SUMMER GUIDANCE INSTITUTE

A special eight-week Counseling and Guidance Institute will be held under the direction of the Department of Personnel Services, College of Education, from June 29 to August 5, 1960. Centering on "Personality Theory in Guidance and Counseling Practice," the Institute is conducted under a contract with the U. S. Office of Education through the provisions of the National Defense Education Act. Stipends of $75 per week plus $15 for each dependent will be available. Applicants must be admitted to the Graduate School and must be either engaged in, or preparing to engage in, secondary school guidance work. Inquiries should be addressed to Dr. Robert O. Stripling, College of Education, University of Florida, Gainesville, Florida.

SOUTHERN REGIONAL GRADUATE SUMMER SESSION IN STATISTICS

At the request of the Southern Regional Education Board's Advisory Commission on Statistics, the University of Florida, the North Carolina State College, Virginia Polytechnic Institute, and Oklahoma State University initiated a continuing program of graduate summer sessions in statistics to be held at each of the four institutions in rotation beginning in the summer of 1954. The 1959 session was held at the North Carolina State College and the 1960 session will be held at the University of Florida, June 20 through July 29. Each of the sponsoring institutions will accept the credits earned by students in the session as residence credit. The courses are arranged to provide consecutive work in successive summers and are of six weeks' duration. Information regarding these courses may be obtained from any of the cooperating statistical departments or the deans of the Graduate Schools concerned. Information concerning the 1960 session may be obtained from Professor Herbert A. Meyer, Statistical Laboratory, Box 3568, Gainesville, Florida.

SUMMER INSTITUTE FOR HIGH SCHOOL TEACHERS OF SCIENCES AND MATHEMATICS

The Summer Institute, conducted under a grant from the National Science Foundation, gives qualified teachers an opportunity to increase their knowledge and teaching ability in biology, chemistry, or mathematics. Stipends are $75 per week plus $15 for each dependent. Tuition and other required University fees are paid by the Institute. A maximum $80 round-trip travel allowance, at the rate of 4 cents per mile, is made to each participant. Applicants must plan to continue teaching in these fields and must be admitted to the Graduate School. Institute credit may apply toward a graduate program in the College of Arts and Sciences or in the College of Education. For further information and for application blanks, write to N. E. Bingham, Co-director, Summer Institute, University of Florida, Gainesville, Florida.

There are a number of special graduate programs that are described in detail in the Graduate School Catalog. Students interested in the following programs are referred to the catalog for complete information:

School of Inter-American Studies
Graduate Program in Public Administration
Research Program at The Oak Ridge Institute of Nuclear Studies
Statistical Laboratory
Graduate Program in Community Planning.

FAMILY FINANCE WORKSHOP

June 20—August 12
1960

A workshop designed to help teachers develop competency in teaching skills and understandings in personal and family finance is to be sponsored jointly by the College of Education and College of Business Administration. Credit of three semester hours each will be given for Eds 604—Curriculum Development Laboratory and Fi 324—Investments for Individuals. Participants may enroll for an additional three-semester-hour course if the course does not conflict with the workshop hours of 9:30-3:00. Open to elementary as well as secondary teachers.

Scholarships including dormitory room and instructional materials are available. Inquiries should be addressed to Dr. James W. Crews, College of Education, University of Florida, Gainesville, Florida.

SPECIAL THREE WEEK COURSES

The courses listed in this section are for special groups and run for three weeks only. Students registering for courses listed in this section follow the same admission and registration procedures as other students but are limited to a maximum load of three semester hours.

June 16-July 8

AGRICULTURAL ECONOMICS

AS. 404.—Principles of Farm Business Analysis. 1½ credits.
9:20 Daily MCC 37 GREENE, R. E. L.
Laboratory: 1:00-4:00 Thursday MCC 37

This course is designed to help students understand how basic economic principles can be applied in the successful management and operation of a farm.

AGRICULTURAL EXTENSION

GRADUATE COURSES

AXT. 601.—Advanced Rural Leadership. 1½ credits.
11:40 Daily. MCC 5 GRIGSBY, S. E.
Laboratory: 1:00 to 4:00 Monday MCC 5

Advanced training in the art of rural leadership, with special emphasis on program planning.

AXT. 621.—Topics in Agricultural Extension. 1 to 3 credits.* Prerequisite: Consent of instructor.
Section 2 To arrange MCC 206 GRIGSBY, S. E.

Library and workshop relating to Agricultural Extension Methods. Research work is studied, publications reviewed and written reports developed.

ANIMAL HUSBANDRY AND NUTRITION

AL. 601.—Special Topics in Animal Science. 3 credits. Open only to vocational agriculture teachers and county agents.
Section 1. 8:10-11:30 Daily WAKEMAN, D. L.

Reviews and discussions of scientific literature in the field of animal science.

BROADCASTING

BR. 518.—Teaching Through Television. 3 credits Prerequisite: Graduate or senior standing, or permission of instructor.
Section 2 8:30-3:30 Daily STA 114 CHRISTIANSEN, K. A., FRANKS, L. E.

Study of the elements of television-radio program production as applied to educational and informational programs. Planning, preparation, and production of programs in the television and radio studios.

EDUCATION—ELEMENTARY

EDE. 570.—Teaching of Reading. 3 credits.
Section 3 8:10-11:40 Daily K 324

A comprehensive survey of the problems of teaching reading in all grades and practical procedures for attacking these problems.

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*Credit assigned must be shown on course assignment card.

EDUCATION—PERSONNEL SERVICES

EDP. 610.—Principles of Guidance and Personnel Work. 3 credits. Prerequisite or corequisite: EDF. 641.
Section 4 8:10-11:40 Daily K 326 MATTHEWS, W. P.

An introduction to the field of guidance and personnel work.

EDUCATION—SECONDARY

EDS. 602.—The Secondary School Curriculum. 3 credits.
8:10-11:40 Daily K 330 TIMMERMAN, E.

An analysis of the scope, functions, and types of secondary school curricula. Consideration will be given to criteria for judging the secondary school curriculum and ways of improving existing programs.

EDUCATION—VOCATIONAL AGRICULTURE

EDV. 672.—Preparing Course Materials and Community Programs in Agriculture. 3 credits.
8:10-11:40 Daily AGE 114 LOFTEN, W. T.

Basic principles of preparing a course of study in vocational agriculture.

FORESTRY

FY. 413.—Forestry for Agriculturists. 3 credits. Prerequisite: B.S. in Agriculture, or permission of the Director.
8:10 Daily ROL 410
Laboratory: 1:00-5:00 MTWTh Field

Principles and practices of forestry pertinent to the management of agricultural lands.

FRUIT CROPS

GRADUATE COURSE

FC. 650.—Projects in Citrus Production (Maturity and Grade)
8:10 Daily MCC 105 ZIEGLER, L. W.
Laboratory: 12:50-4:10 Tuesday MCC 105

1 hour, and 4 hours field work. 3 credits per project. Maximum 12 credits. Prerequisite: FC. 341 or its equivalent and consent of instructor. Offered 2, 3. Field work during second semester followed by classroom work in summer session. No credit until project is completed. Offered primarily to Agricultural Extension workers and Vocational Agriculture teachers. Each time it is offered, this course will be announced in the schedule of courses with one of the following projects specified: Stocks and Scions, Fertilization, Spray Schedules, or Maturity and Grade.

JOURNALISM

JM. 515.—Journalism in Secondary Schools. 3 credits. Prerequisite: Senior standing or permission of the instructor.
Section 2 Lecture-laboratory: 8:10-3:00 Daily STA 326 WEBB, JOHN V.

This course is designed for persons who plan to teach Journalism in secondary schools, or who act as faculty advisors for school newspapers, magazines, or yearbooks. It includes a general survey of the editorial, business, publishing, and mechanical phases of school publications with emphasis on those aspects which are of particular value to teachers.

ORNAMENTAL HORTICULTURE

OH. 499.—Special Problems in Ornamental Horticulture. 1½ credits.
10:30 Daily MCC 6 MC ELWEE, E. W.
Laboratory: 1:00-4:00 Wednesday HGH

Individual research work and problems in various phases of landscape gardening.

SCHOOL ART

SCA. 333.—Planning the Art Curriculum. 3 credits.
8:10-11:40 Daily NRN 113 BERG, C.
1:00-4:00 T Th

A study of various types of school art expression based on an understanding of the needs of elementary school children. Experiences with many types of art media will be provided.

VEGETABLE CROPS

VC. 499.—Special Problems in Vegetable Crops. 1½ credits.
Section 2 7:00 Daily MCC 9
Laboratory: 1:00-4:00 Friday MCC 9

Special problems in vegetable production.

SPECIAL FOUR WEEK COURSE

June 16-July 15

Enrollment limited to selected educators from certain counties in Florida. Not open to general registration. Application forms may be obtained by writing the instructor and the application must be approved prior to June 1, 1960.

PHYSICAL EDUCATION, HEALTH AND ATHLETICS

PHA. 491.—The Operation of Community Health Education Programs. 3 credits.
Prerequisite: Permission of the instructor.
To arrange FLG 210 SANDEFUR, W. T., KREBS, R. E.

Problems in operating community programs of health education. Field experiences in the student's local county health agencies, both official and voluntary. The course is offered in cooperation with the College of Education, the State Department of Education and the State Board of Health.

SPECIAL SIX WEEK COURSES

June 16-July 29

THE COURSES LISTED IN THIS SECTION RUN FOR SIX WEEKS ONLY. STUDENTS REGISTERING FOR THE COURSES BELOW FOLLOW THE SAME ADMISSION AND REGISTRATION PROCEDURES AS OTHER STUDENTS BUT ARE LIMITED TO A MAXIMUM LOAD OF SIX SEMESTER HOURS.

SOUTHERN REGIONAL GRADUATE SUMMER SESSION IN STATISTICS.—A Graduate Program in Statistics for Statisticians, Research Workers and Teachers in Mathematics, Social Science, Education, Psychology, Public Health, Engineering, Biology, Business and the Physical Sciences.

AGRICULTURAL ECONOMICS

AS. 520.—Sampling Methods. 3 credits.
10:20-11:50 Daily MI 27 SARLE, C. F.

Prerequisite: AS. 411 or AY. 650. Basic principles of probability sampling and their application to socio-economic survey research problems. Control of sampling and non-sampling errors and survey costs by use of proportionate and disproportionate, stratified, cluster, area and multistage sampling, and by ratio and regression estimation.

AGRONOMY

AY. 628.—Problems in Statistics. 3 credits.
1:30-3:00 P.M. Daily MI 25 BRANDT, A. E.
PROBLEMS IN STATISTICS. Prerequisite: A graduate course in statistics.

Special problems in statistics, in the area of research methods, sampling methods, and experimental design.

AY. 650.—Statistical Methods in Research. 3 credits.
7:00-8:30 A.M. Daily MI 25 MARSHALL, C. E.
STATISTICAL METHODS I. Prerequisite: Introductory course in statistics or consent of instructor.

Introduction to probability, distributions of sample statistics, x, s^2, x^2, t and F, and their uses in estimation and tests of hypotheses; regression and correlation; analysis of variance.

AY. 651.—Design of Experiments. 3 credits.
7:00-8:30 A.M. Daily MI 26 ASH, W. O.
STATISTICAL METHODS II. Prerequisite: Statistical Methods I or equivalent.

Introduction to the basic statistical designs used in scientific experimentation, factorial experiments, covariance analysis, multiple regression.

MATHEMATICS

MS. 619.—Statistical Theory I. 3 credits. Prerequisite: Calculus.
8:40-10:10 Daily MI 25

Elementary comginatorial probability theory; probability distribution; generating functions; mathematical expectation; limit theorems; multi-variate normal distribution.

MS. 620.—Statistical Theory II. 3 credits. Prerequisite: Theory I.
8:40-10:10 Daily MI 26

MS. 690.—Special Topics. 3 credits. Prerequisite: Statistical Theory II.
7:00-8:30 Daily MI 27
Section I. (Statistical Theory III. Least Squares.)

A study of the theory of multiple linear regression, estimation and tests of hypotheses of parameters in multiple regression, Markoff theorem, distribution of quadratic forms, power of tests.

MS. 690.—Special Topics. 3 credits. Prerequisite: Statistical Methods I and Statistical Theory II.
8:40-10:10 Daily MI 27
Section II. (Response Surfaces.)

Multiple regression; theory and methodology of response surface experimentation; development and use of rotatable and other designs for fitting response surfaces, including arrangement into incomplete blocks.

MS. 690.—Special Topics. 3 credits. Prerequisite: Statistical Theory II.
10:20-11:50 Daily MI 25
Section III. (Advanced Statistical Inference.)

Sufficient statistics. Unbiassed estimators with maximum variance. Maximum likelihood estimation. Consistent estimators. Admissible, Bayes and minimax estimators. Best asymtotically normal estimators. Tests of hypotheses. Risk functions. Sequential tests and estimates. Double sampling.

SPECIAL THREE WEEK COURSES

July 11-July 29

EDUCATION—ELEMENTARY

EDE. 671.—Language Arts in the Elementary School—Creative Expression. 3 credits.
Section 2 8:10-11:40 Daily K 326

Emphasis upon literature for young children and the arts related to it. These arts include illustrations, dramatization, puppetry, and other dramatic forms of story telling, creative writing, and evaluation and study of children's books in terms of their interests and needs.

EDUCATION—FOUNDATIONS

EDF. 620.—Socio-Economic Foundations of Education. 3 credits.
Section 3 9:30-1:00 Daily K 327 BAKER, M.

The socio-economic bases for education are comprehensively surveyed.

EDUCATION—PERSONNEL SERVICES

EDP. 612.—Techniques of Guidance and Personnel Work. 3 credits.
Section 2. 8:10-11:40 Daily K 329 STEVENS, D. F.

A survey of guidance practices for teachers, supervisors, administrators and other school personnel not majoring in guidance and personnel work.

EDUCATION—SECONDARY

EDS. 611.—The Core Program in the Secondary School. 3 credits.
8:10-11:40 Daily K 332 DAVIS, E. A.

Methods, materials and organization of core classes.

SCHOOL ART

SCA. 334.—School Art Design. 3 credits.
Section 2 8:10-11:40 Daily NRN 105 FARRIS, M. L.
1:00-4:00 T Th

To help teachers understand design in art work of children; crafts and graphics.

SPECIAL THREE WEEKS COURSE

FOR STATE EMPLOYMENT COUNSELORS

July 25-August 12, 1960

This course is open only to State Employment Counselors. The emphasis in the course will be on counseling.

EDP. 660.—Problems in Student Personnel Work. 3 credits
Section 5 9:00-12:00 Daily K 330 WRIGHT, E. W.
1:30-3:30

An inservice education course open only to persons engaged in personnel work in education or closely allied areas.

SCHEDULE OF COURSES SUMMER SESSION 1960

June 16-August 13

MINIMUM SIZE OF CLASSES

No undergraduate class or section will be continued or offered if, at the end of the regular registration period, prior to the day classes begin for a term or semester, the registration does not meet the following minimum requirements.

For Freshmen and Sophomore classes or sections (the comprehensive courses and courses numbered in the 100's and 200's) the minimum is 12 registrations.

For Junior classes or sections (courses numbered in the 300's) the minimum is 8 registrations.

For Senior classes or sections (courses numbered in the 400's and 500's) the minimum is 6 registrations.

ABBREVIATIONS

The following abbreviations have been used to designate buildings:

ADM	ADMINISTRATION BUILDING
AE	BUILDING AE
AGE	AGRICULTURAL ENGINEERING BUILDING
ALA	AGRONOMY LABORATORY
AND	ANDERSON HALL
B	BUILDING B
BNX	BENTON ANNEX
BEN	BENTON HALL
C	BUILDING C (Art)
CRL	CANCER RESEARCH LABORATORY
CIL	CITRUS LABORATORY
DAL	DAIRY LABORATORY
E	BUILDING E
ENG	ENGINEERING AND INDUSTRIES BUILDING
F	BUILDING F
FLI	FLINT HALL
FLG	FLORIDA GYMNASIUM
FLO	FLOYD HALL
FML	FARM MACHINE LABORATORY
HGH	HORTICULTURE GREENHOUSE
I	BUILDING I (Classrooms)
J	BUILDING J (Biology Laboratory)
K	BUILDING K
MPL	MEAT PRODUCTS LABORATORY
N	BUILDING N (Engineering Classrooms and Laboratories)
NEW	NEWELL HALL
NEA	NEWELL ANNEX
NRB	NUCLEAR RESEARCH BUILDING
NRN	NORMAN HALL
NUL	NUTRITION LABORATORY
OD	OFFICE D
OE	OFFICE E
OF	OFFICE F
PEA	PEABODY HALL
PEC	PEST CONTROL BUILDING
PHY	PHYSICS LABORATORY
POL	POULTRY LABORATORY
R	BUILDING R (Music)
RLA	REED LABORATORY
ROL	ROLFS HALL
SEA	SEAGLE BUILDING
SAL	PHELPS SANITARY LABORATORY
STA	STADIUM
THC	TEACHING HOSPITAL & CLINICS
TUL	TUNG LABORATORY
U	BUILDING U (Architecture and Art)
UAN	FLORIDA UNION ANNEX

L	BUILDING L	VEL	VEGETABLE PROCESSING LABORATORY
LAW	LAW BUILDING	VFH	VEGETABLE FIELD HOUSE
LEI	LEIGH HALL	WAL	WALKER HALL
LIB	LIBRARY	WGY	WOMEN'S GYM
LSP	LIVESTOCK PAVILION	WPL	WOOD PRODUCTS LABORATORY
MCC	DAN McCARTY HALL	X	BUILDING X
MAT	MATHERLY HALL	YON	YONGE BUILDING
MSB	MEDICAL SCIENCES BUILDING		
MIL	MILITARY BUILDING		

C-1

C-11.—American Institutions. 4 credits.
(Register for the lecture and one discussion section.)
Lecture Section 11: 10:30 T Th WAL AUD
Discussion Sections:
Section 101 7:00 Daily PEA 208
Section 102 8:10 Daily PEA 208
Section 103 8:10 Daily PEA 209
Section 104 9:20 Daily PEA 208

C-12.—American Institutions. 4 credits.
(Register for the lecture and one discussion section.)
Lecture Section 21: 10:30 MW WAL AUD
Discussion Sections:
Section 201 7:00 Daily PEA 206
Section 202 8:10 Daily PEA 206
Section 203 9:20 Daily PEA 206

C-11 & C-12: The course is designed to develop insight into the interrelated problems of present American Institutions. The historical bases of our evolving institutions are demonstrated in technology, economic life, government, family life, and in religion. Such a study is undertaken to show the effect upon values resulting from the tensions existing between the individual and his social institutions, and to suggest ways of achieving a greater degree of individual and collective soical adjustment.

C-2

C-21.—The Physical Sciences. 3 credits.
(Register for the Lecture Section and one Discussion Section.)
Lecture Section 11: 2:00 MW BEN 203
Discussion Sections:

Section 101 8:10 Daily BEN 201
Section 102 9:20 Daily BEN 201

C-22.—The Physical Sciences. 3 credits.
(Register for one section only.)
Section 201 8:10 Daily BEN 203
Section 202 9:20 Daily BEN 203

C-21-22: The primary aim of the course is to give the student a working knowledge, through the solution of numerous problems, of the physical factors in the environment which affect the development of civilization, with its various cultures. These factors are primarily space relations, weather and climate, landforms, and material and energy resources. The concepts are taken from the fields of astronomy, physical geography, meteorology and climatology, geology, chemistry, and physics.

C-3

C-31.—Reading, Speaking, and Writing: Freshman English. 4 credits.
(Register for on Discussion Section and one Laboratory Section.)

Discussion Sections:

Section 101	8:10 Daily	AND 20
Section 102	8:10 Daily	MAT 4
Section 103	9:20 Daily	AND 20
Section 104	9:20 Daily	MAT 6
Section 105	11:40 Daily	AND 20

Writing Laboratory Sections:

Section 301	7:00 M W F	AND 203
Section 302	9:20 M W F	AND 203
Section 303	10:30 M W F	AND 203
Section 304	11:40 M W F	AND 203

C-32.—Reading, Speaking, and Writing: Freshman English. 4 credits.
(Register for one Discussion Section and one Laboratory Section.)

Discussion Sections:

Section 201	8:10 Daily	MAT 6
Section 202	9:20 Daily	MAT 4
Section 203	9:20 Daily	AND 307
Section 204	11:40 Daily	MAT 4

Writing Laboratory Sections:

Section 401	8:10 M W F	AND 203
Section 402	9:20 M W F	AND 209
Section 403	12:50 M W F	AND 203

C-31-32: Reading, Speaking, and Writing. Designed to provide experiences in reading, speaking, and writing necessary for the student's success in college and in life. There are practice and counsel in oral reading, in silent reading, in logical thinking, in fundamentals of form and style, in extension of vocabulary and in control of the body and voice in speaking. Students are encouraged to read widely as a means of broadening their interests and increasing their understanding of literature.

C-3

EH. 133.—Effective Writing. 3 credits. Prerequisite: C-3, or permission of C-3 Course Chairman.
2:00 Daily D 120

Designed to aid the student to present his ideas in writing which is not only accurate and clear but pleasing and attractive to the reader. Qualified students are encouraged to do imaginative writing.

EH. 134.—Contemporary Reading. 3 credits. Prerequisites: C-3, or permission of C-3 Course Chairman.
10:30 Daily AND 20

Designed to aid the student in planning for himself a well-rounded program in reading, which will serve to keep him abreast of the best in contemporary thought. Some time will be spent in introducing each student to the bibliography and writing in the area of his special professional interest.

C-41

C-41.—Practical Logic. 3 credits.
(Register for one section only.)

Section 1 8:10 Daily ADM 207
Section 2. 9:20 Daily ADM 207
Section 3 10:30 Daily ADM 207

This course attempts to improve the student's thinking skills in at least five ways. It attempts to train the student to detect and resist common devices of persuasion used in propaganda and advertising, to avoid certain common errors in reasoning, to reason accurately from principles, to apply the methods of science to everyday problems, and to gain an understanding of and a measure of control over emotional and other psychological factors in thinking. Copious examples of reasoning, both sound and unsound, are examined.

C-42

C-42—Fundamental Mathematics. 3 credits.
(Register for one section only.)
Section 1 8:10 Daily PEA 7
Section 2 9:20 Daily PEA 7
Section 3 10:30 Daily PEA 7
Section 4 11:40 Daily PEA 7

An elementary course consisting of a study of the number system; computation with exact and approximate numbers; algebra; geometry; functional relationships; logarithms; trigonometry; simple and compound interest. Not open to students who have completed Basic Mathematics.

C-5

C-51.—Humanities. 4 credits.
(Register for the Lecture Section and one Discussion Section.)
Lecture Section 11: 11:40 M W WAL AUD
Discussion Sections:
Section 101 7:00 Daily AND 115
Section 102 8:10 Daily AND 115
Section 103 9:20 Daily AND 115
Section 104 10:30 Daily AND 115
Section 105 8:10 Daily AND 113
Section 106 9:20 Daily AND 113
Section 107 10:30 Daily AND 113
Section 108 10:30 Daily AND 110

C-52.—Humanities. 4 credits.
(Register for the Lecture Section and one Discussion Section.)
Lecture Section 21: 11:40 T Th WAL AUD
Discussion Sections:
Section 201 7:00 Daily AND 112
Section 202 8:10 Daily AND 112
Section 203 9:20 Daily AND 112
Section 204 10:30 Daily AND 112
Section 205 8:10 Daily AND 110
Section 206 9:20 Daily AND 110

C-5.—The Humanities

A course designed to acquaint the student with the great literature, philosophy, art and music in Western Civilization. Both our cultural heritage and the culture of our own day are studied. Major emphasis is placed upon mature understanding, enlarged appreciation, and a philosophy of life adequate for the needs of our age.

C-6

C-61.—Biological Sciences. 3 credits.
(Register for one section only.)

Section 101 7:00 Daily FLI 110
Section 102 8:10 Daily FLI 110
Section 103 9:20 Daily FLI 110
Section 104 10:30 Daily FLI 110
Section 105 11:40 Daily FLI 110

C-62.—Biological Sciences. 3 credits.
(Register for one section only.)
Section 201 7:00 Daily FLI 112
Section 202 8:10 Daily FLI 112
Section 203 9:20 Daily FLI 112
Section 204 10:30 Daily FLI 112
Section 205 11:40 Daily FLI 112

A course designed to develop: (1) an understanding of and interest in the nature of organisms through a study of important basic biological concepts illustrated and supported by a suitable, carefully limited, selection of examples; (2) an appreciation of the contributions of the biological sciences to man's understanding of the world he lives in, his material progress and his appreciation of the order, harmony and beauty of the world.

ACCOUNTING

ATG. 211.—Elementary Accounting. 3 credits.
(Register for one section only.)
Section 1 8:10 Daily MAT 225 STERLING, R. R.
Section 2 10:30 Daily MAT 224 ALMEIDA, J. S.

Accounting as a measure of business activity. Assumptions underlying accounting; recording and reporting transactions; and preparation and interpretation of financial and operating statements.

ATG. 212.—Elementary Accounting. 3 credits. Prerequisite: ATG. 211.
(Register for one section only.)
Section 1 8:10 Daily MAT 224 MASTER, J. J.
Section 2 9:20 Daily MAT 16 PETERSON, E. G.

Accounting for different equity structures and for cost reporting and control. Intensive analysis of reports and statements.

ATG. 311.—Intermediate Accounting. 3 credits. Prerequisite: ATG. 212.
9:20 Daily MAT 224 DEINZER, H. T.

A study of the assumptions underlying income determination and the theories of matching costs with revenue. Asset acquisition valuation and expiration.

ATG. 312.—Intermediate Accounting. 3 credits. Prerequisite: ATG. 311.
11:40 Daily MAT 16 MOORE, J. F.

Accounting problems resulting from the corporation organization. Special problems of analysis including those that arise as the result of changing price levels.

ATG. 313.—Industrial Accounting. 3 credits. Prerequisite: ATG. 212.
10:30 Daily MAT 16 MOORE, J. F.

Interpretation and control of costs. Various systems of cost accumulation and organization for analysis and control. Standards and simple variance analysis.

ATG. 411.—Advanced Accounting. 3 credits. Prerequisite: ATG. 312.
11:40 Daily MAT 224 STERLING, R. R.

Special topics in income determination and correction, compound interest, annuities, and insurance contracts, equity aspects of partnerships and estates.

ATG. 412.—Auditing. 3 credits. Prerequisite, ATG. 312.
9:20 Daily MAT 119 ANDERSON, C. A.

Professional ethics, legal responsibilities, and auditing standards. Auditor's objectives, working papers, procedures, and reports.

ATG. 414.—Income Tax Accounting. 3 credits. Prerequisite: ATG. 311.
10:30 Daily MAT 14 PETERSON, E. G.

Federal income tax law and related management and accounting problems. Preparation of returns for individuals and corporations, and use of research tools.

ATG. 415.—Corporate Accounting. 3 credits. Prerequisite: ATG. 411.
8:10 Daily MAT 119 ANDERSON, C. A.

Corporate accounting problems in the area of consolidation, reorganization, quasi-reorganization, mergers and voluntary and involuntary liquidations.

GRADUATE COURSES

ATG. 611.—Accounting Theory. 3 credits. Prerequisite: ATG. 411.
10:30 Daily MAT 119 DEINZER, H. T.

Intensive study of accounting objectives with reference to the measurement of enterprise performance.

ATG. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange.

Directed research and writing for the M.A. degree. Taken toward the end of the student's graduate program for credit in addition to the basic 24 hours required for the Master's degree.

ADVERTISING

ADV. 512.—Advertising Campaigns. 3 credits. Prerequisite: JM. 310.
9:20-11:30 MTWTh STA 226 MILLER, G. H.

An advanced advertising course requiring the student to prepare and produce complete retail and general advertising campaign. Emphasis is placed on production methods, materials, and costs.

AGRICULTURAL CHEMISTRY

GRADUATE COURSE

ACY. 699.—Research and Master's Thesis. 0-6 credits.*
To arrange

AGRICULTURAL ECONOMICS

AS. 201.—Principles of Agricultural Economics. 3 credits.
8:10 Daily MCC 44 GREENMAN, J. R.

An introduction to the field of agricultural economics; principles of economics as applied to agriculture; economic problems of the agricultural industry and the individual farmer.

AS. 304.—Farm Finance and Appraisal. 3 credits.
8:10 Daily MCC 37 CLARK, H. B.

Volume, soures and uses of agricultural credit in Florida and the United States. The principles of credit and problems peculiar to financing farmers and farmers' associations. One field trip usually required.

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*Credit assigned must be shown on course assignment card.

AS. 306.—Farm Management. 3 credits.
10:30 Daily MCC 37 CLARK, H. B.

Not open to freshmen. Introduction to the principles of farm management. Types of farming in Florida and the United States, and factors which determine types of farming. The causes of success and failure of farms and farmers. Problems of labor, machinery, layous of farms, farm reorganization, and such.

AS. 308.—Marketing. 3 credits.
9:20 Daily MCC 44 McPHERSON, W. K.

Basic principles of marketing with emphasis placed on market functions, services, and organizations; elementary theory of demand and prices; commodity exchanges and future trading; transportation; grades and standards; market news; methods of increasing efficiency of markets; the role of co-ops and government in marketing. One field trip required.

AS. 413.—Agricultural Policy. 3 credits.
10:30 Daily MCC 44 GREENMAN, J. R.

A history of farmer attempts and accomplishments through organization and legislation to improve the economic and social status of agriculture. The basic problems and concepts involved in developing and carrying out an agricultural policy. Evaluation of present legislative programs and policies affecting the farmer.

COURSE FOR ADVANCED UNDERGRADUATES AND GRADUATES

AS. 501.—Research Problems in Land Economics. 3 credits.
To arrange.

Prerequisite: consent of instructor. Economic problems created by the continually changing uses of land resources, i.e., water, soil, timber, climate, situs, will be studied. Each student will select a problem, outline and conduct research on that problem and prepare a written report. Students majoring in other departments will be encouraged to select problems that will help them evaluate economic and social impact of the progress being made in other fields of learning on the natural resource base, i.e., animal husbandry, agronomy, soils, forestry, community planning, Latin American programs, etc.

GRADUATE COURSES

AS. 605.—Research Problems in Farm Management. 3 credits.
To arrange.

Designed to train students in collecting, analyzing and presenting data on problems in the field of farm management. Special problems of interest to the individual student and agreeable with the instructor are selected for study. A statement of the problem is prepared, research work studied, publications reviewed and written reports developed.

AS. 611.—Research Problems in Marketing Agricultural Products. 3 credits.
To arrange.

Individual examinations of segments of the marketing system for Florida products. Emphasis may be placed on efficiency, market organization, trading arrangements, historical development or other aspects of the problem of interest to the student and agreeable with the instructor. A comprehensive report on the investigations and conclusions of the student is required.

AS. 628.—Problems in Statistics. 1-3 credits.*
To arrange. Identical with AY. 628.

Prerequisite: A graduate course in statistics. Special problems in statistics, in the areas of research methods, sampling methods, experimental design, theory of sampling and theory of experimental designs.

AS. 699.—Research and Master's Thesis. 0-6 credits.*
To arrange.

AS. 799.—Research and Doctoral Dissertation. 1-6 credits.*
To arrange.

*Credit assigned must be shown on course assignment card.

AGRICULTURAL ENGINEERING

AG. 306.—Farm Machinery. 3 credits.
11:40 M T W Th AGE 1 RICHARDSON, J. B.
Laboratory: 2:00 to 4:10 Th AGE 17

The functional requirements, design, and selection of farm machinery.

GRADUATE COURSES

AG. 670.—Research. 3 credits.
To arrange AGE 9

Special problems in agricultural engineering.

AG. 671.—Problems in Irrigation. 3 credits.
To arrange AGE 9

Analysis and solution of selected problems dealing with land improvement and the control and use of water for agricultural production.

AG. 672.—Problems in Farm Machinery and Power. 3 credits.
To arrange AGE 9

Analysis of agricultural machines, power units, and mechanized systems with emphasis on functional design requirements.

AG. 673.—Problems in Farm Structures. 3 credits.
To arrange AGE 9

Analysis of selected problems dealing with design criteria for farm structures, particularly as related to efficient production systems.

AG. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange AGE 9

AGRICULTURAL EXTENSION

AXT. 421.—Problems inAgricultural Extension Methods. 3 to 6 credits per semester, maximum 6 credits.* Prerequisite: Consent of instructor.
To arrange. MCC 206 GRIGSBY, S. E.

Topics and special problems selected from such fields of Agricultural Extension as 4-H Club work, demonstrations, farm and home management, and rural development.

GRADUATE COURSE

AXT. 621.—Research in Agricultural Extension. 1 to 3 credits per semester, maximum 9 credits.* Prerequisite: Consent of instructor.
Section 1 To arrange MCC 206 GRIGSBY, S. E.

Library and workshop relating to Agricultural Extension methods. Research work is studied, publications reviewed and written reports developed.

AGRONOMY

AY. 324.—Forage and Cover Crops. 3 credits.
10:30 M T W Th MCC 204 RUELKE, O. C.
Laboratory 12:50-3:00 W MCC 204

Plants that produce feed for livestock. Methods of growing and utilizing forage crops. Plants suited for cover and conservation programs.

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*Credit assigned must be shown on course assignment card.

AY. 329.—Genetics. 3 credits.
8:10 Daily MCC 5

Fundamentals of inheritance, emphasizing the application of genetics and its associated branches of science in the improvement of economic plants and animals and in programs for human betterment.

AY. 426.—Individual Problems in Agronomy. 1 to 3 credits.* Prerequisite: Consent of instructor.
To arrange. MCC 209 SENN, P. H.

Individual problems selected from the field of crop production, weed control, genetics or plant breeding.

GRADUATE COURSES

AY. 626.—Agronomic Problems. 1 to 3 credits.*
To arrange. MCC 209 SENN, P. H.

Special topics for classroom, library, laboratory, or field studies which relate to crop production and improvement.

AY. 627.—Problems in Genetics and Cytogenetics. 1 to 3 credits.*
To arrange. MCC 209 SENN, P. H.

Modern methods applied to specific genetic or cytogenetic research problems.

AY. 699.—Research and Master's Thesis. 0 to 6 credits.*

AY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*

ANIMAL HUSBANDRY AND NUTRITION

AL. 309.—General Animal Husbandry. 3 credits.
7:00 Daily MCC 44 LOGGINS, P. E., WAKEMAN, D. L.

Types and breeds of farm animals; market classification; selection and management.

GRADUATE COURSES

AL. 601.—Special Topics in Animal Science. 3 credits.
Section 2 To arrange

Reviews and discussions of scientific literature in the field of animal science.

AL. 609.—Problems in Animal Husbandry and Nutrition. Variable credit.*
To arrange

AL. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange

AL. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange

ANTHROPOLOGY

APY. 500.—Field Session in Archaeology. 6 credits. Prerequisite: 6 hours of Anthropology, including APY 201.
To arrange L 204 GOGGIN, J. M.

Excavation of archeological sites, recording of data, laboratory handling and analysis of specimens, and study of the theoretical culture principles which underlie field methods and artifact analysis.

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*Credit assigned must be shown on course assignment card.

ARCHITECTURE

AE. 112.—Graphic Techniques II. 2 credits.
2:00-5:20 M W F E-116

Exercises in freehand and instrumental drawing.

AE. 121.—The Building Arts I. 2 credits.
12:50 M T W Th F E-157

A survey of the building arts with emphasis on the social factors that govern them.

AE. 122.—The Building Arts II. 3 credits.
10:30 T Th F E-157
Laboratory: 2:00-5:20 T Th E-116

A survey of the building arts with emphasis on the physical and psychological factors that influence them.

AE. 211.—Visual Expression I. 2 credits.
7:00-9:10 T W Th F E-175

The representation of spatial relationships using various appropriate media and techniques with emphasis on the development of interpretative skills.

AE. 212.—Visual Expression II. 2 credits.
7:00-9:10 M T W Th E-175

Continuation of AE 211 with advanced analysis of media, techniques and composition.

AE. 231.—Elementary Architectural Design I. 3 credits.
2:00-4:10 M W E-174
12:50-4:10 T Th F

A study of the basic elements and principles of two and three-dimensional design, in conjunction with basic architectural problems.

AE. 232.—Elementary Architectural Design II. 3 credits.
2:00-5:20 M T Th E-179
2:00-4:10 W F

Continuation of Elementary Architectural Design AE 231.

AE. 241.—Materials and Methods of Construction I. 2 credits.
10:30 T Th E-102
Laboratory: 9:20-11:30 M W F E-174

Types and general properties of building materials, elements of building construction: types of construction, systems, fire-loss prevention and building codes.

AE. 242.—Materials and Methods of Construction II. 2 credits.
9:20 T Th E-157
Laboratory: 9:20-11:30 M W F E-179

Types, properties and design of the construction frames of buildings.

ART

ART 103.—Beginning Drawing and Painting. 2 credits.
8:10-10:20 Daily C 101 GRISSOM, E. E.

Exploration of the drawing media. Drawing as a means of formal organization. Study of still-life figure and landscape.

ART 206.—Intermediate Drawing and Painting. 2 credits
8:10-10:20 Daily C 100 KERSLAKE, K. A.

Pictorial composition. Relationship of subject matter to pictorial form and content. Painting in gouache and casein.

ART 260.—Lettering. 3 credits.
12:50-4:20 T Th and 2 hours to arrange. X 15 CRAVEN, R. C.

Principles of design and use of letter forms. Study of historic designs and styles. Development of skills of execution.

ART 280.—Beginning Ceramics. 3 credits. Prerequisite: ART 101 or consent of instructor.
7:00-10:00 p.m. M T Th X 3 WARD, P. A.

Basic concepts of ceramic design. Experience in processes of forming, decorating, glazing and firing pottery.

ART 318.—Medieval Art. 3 credits. No prerequisite.
7:00 Daily X 14 GRISSOM, E. E.

The art and architecture of Europe and the Mediterranean region from approximately the fourth to the fourteenth centuries A.D.

ART 351.—Painting, I. 3 credits. Prerequisite: ART 206.
8:10-10:20 Daily C 100 KERSLAKE, K. A.

The oil medium. Technical and creative problems. Continued emphasis upon pictorial organization.

ART 352.—Painting, II. 3 credits. Prerequisite: ART 206.
8:10-10:20 Daily C 100 KERSLAKE, K. A.

Technical and creative problems in one or more of the painting media: oil, watercolor, casein, lacquer, tempera, etc.

ART 355.—Printmaking, I. 3 credits. Prerequisite: ART 206 or consent of instructor.
10:30-12:40 Daily C 105 KERSLAKE, K. A.

Basic procedures and processes in paintmaking. Formal and expressive characteristics of the print media.

ART 356.—Printmaking, II. 3 credits. Prerequisite: ART 355.
10:30-12:40 Daily C 105 KERSLAKE, K. A.

A continuation of ART 355.

ART 360.—Layout. 3 credits. Prerequisite: ART 101. Recommended, ART 260.
12:50-4:20 T Th and 2 hours to arrange. X 15 CRAVEN, R. C.

Fundamental principles of visual communication and of design in printed material.

ART 382.—Intermediate Ceramics. 3 credits. Prerequisite: ART 280.
7:00-10:00 p.m. M T Th X 3 WARD, P. A.

Continuation of ART 280. Emphasis upon use of the potter's wheel and experimentation with ceramic glazes.

ART 551.—Individual Work: Studio. 3 or 6 credits. Prerequisite: A major in Art and permission of the department head.
To arrange

ASTRONOMY

ATY. 141.—Descriptive Astronomy. 3 credits. Not open to students who have had any other course in astronomy.
8:10 Daily WAL 213

An elementary survey of the astronomical universe. Primarily intended as an elective for those not majoring in a physical science or mathematics.

BACTERIOLOGY

BCY. 300.—Bacteria in Everyday Life. 3 credits. Prerequisite: C-61 or equivalent.
12:50 M T Th F MCC 60 CARROLL, W. R. and TYLER, M. E.
Laboratory 2:00 to 4:10 T Th MCC 167

Bacteria in relation to evolution, higher plants and animals, and particularly man. Their functions in the cycle of chemical transformations, in food production, in disease, and in general sanitation. The related activities of some yeasts and molds, and of the filterable disease agents. A terminal course, not acceptable for admission to advanced courses in bacteriology. Available for minor credit to graduate students in non-science curricula only.

GRADUATE COURSES

BCY. 600.—Public Health Microbiology. Variable credit.*
To arrange Jacksonville** BUREAU OF LABORATORIES STAFF

Principles and methods in diagnostic public health micro-biology.

BCY. 699.—Research and Master's Thesis. 0-6 credits.*

BCY. 799.—Research and Doctoral Dissertation. 1-6 credits.*

BIOLOGY

BLY. 181.—General Zoology. 4 credits.
Lecture Section: 10:30 M T W Th FLI 101
Laboratory Section: 12:50-3:00 M T W Th FLI 2

An introductory course dealing with protoplasm, animal cells, the structure, functioning, embryology, and evolutionary relationships of representatives of the major animal phyla.

BLY. 303.—Birds of Florida. 3 credits. Prerequisite: C-6 or Bly. 181
Lecture Section: 7:00 M W FLI 101 WESTFALL, M. J.
Laboratory Section. 2:00-5:20 W F FLI 6
Field Work: 5 hrs. to arrange

Particular attention is given to the recognition and identification of the local birds.

BLY. 400.—Biology for Teachers. 6 credits. Prerequisite: 1 yr. college biology with laboratory.
Lecture Section: 8:10-10:20 M T W Th F FLI 101
Laboratory Section: 2:00-4:10 T Th J 101
Field Trips to be arranged

Designed to provide secondary school teachers with a gackground of modern biology and a knowledge of the basic ecological relationships of common animals and plants.

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*Credit assigned must be shown on course assignment card.

**Course given at Bureau of Laboratories, State Board of Health, Jacksonville.

BLY. 430.—Individual Studies in Animal Biology. 3 credits. Prerequisites: At least fourteen hours in approved major courses in biology, and consent of instructor.

To arrange

Qualified students and the instructor concerned may choose a particular topic or problem for study.

BLY. 531.—(Identical with BTY. 531). Cytology. 4 credits. Prerequisites: 1 yr. General Biology or its equivalent, advanced standing and consent of the instructor. Available for graduate major credit.

Lecture Section: 8:10 M T W Th MCC 310 SAGAWA, Y.
Laboratory Section: 9:20-12:40 T Th MCC 310

The study of the microscopic components of plant and animal cells.

BLY. 630.—Individual Studies in Animal Biology. 3 credits. Prerequisite: Graduate status and consent of instructor.

To arrange

Studies may be chosen from one or more aspects of the following fields: comparative anatomy, cytology, ecology, embryology, experimental biology, fresh water biology, game management, genetics, herpetology, histology, itchthyology, invertebrate zoology, including archnology and insect biology, limnology, malacology, mammalogy, marine biology, ornithology, parasitology, general or comparative physiology, protozoology, vertebrate paleozoology, and zoogeography. BLY. 630 may be elected for additional credit in subsequent semesters.

BLY. 699.—Research and Master's Thesis. 0 to 6 credits.*

BLY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*

BOTANY

BTY. 211.—Elementary Plant Physiology. 3 credits. Prerequisites: BTY. 180. or BLY. 181. and one year of chemistry.

8:10 M T W Th MCC 5 NOGGLE, G. R.
Laboratory: 12:50-3:00 T Th MCC 321

A course designed to introduce the student to the basic concepts of plant physiology. Plant growth, mineral nutrition, translocation, water relations, metabolism and photosynthesis are discussed in relation to the overall functioning of the plant.

GRADUATE COURSES

BTY. 531. (Identical to BLY. 531.)—Cytology. 4 credits. Prerequisites: One year of general biology or its equivalent, advanced standing and consent of the instructor. Available for graduate major credit.

8:10 M T W Th MCC 310 SAGAWA, Y.
Laboratory: 9:20-12:40 T Th MCC 310

A study of the microscopic components of plant and animal cells. Consideration will be made of the structure, chemical constituents and function of the cell wall, protoplasm, cytoplasmic constituents and nucleus. The role of chromosome numbers and aberrations in speciation and evolution, and the problem related to abnormal growth and senescence will also be discussed.

BTY. 600.—Problems in Botany. 1-4 credits.*

To arrange

Problems in cytology and plant physiology. The nature of the problem will depend on the qualifications of the student and the peculiar interest of the staff member.

BTY. 699.—Research and Master's Thesis. 0-6 credits.*

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*Credit assigned must be shown on course assignment card.

BROADCASTING

BR. 430.—Individual Problems. 3 credits. Prerequisite: At least 15 hours of Communications in the Upper Division, and approval of the Director.
To arrange.

Designed for seniors in their graduating semester. Students and the instructor concerned will choose a problem or project which will give the student actual experience in his major field.

BR. 518.—Teaching Thorugh Television. 3 credits. Prerequisite: Graduate or senior standing.
Section 1 2:00-3:10 M T W Th 3 hours laboratory to arrange STA 114
CHRISTIANSEN, K. A., FRANKS, L. E.

Study of the elements of television-radio program production as applied to educational and informational programs. Planning, preparation, and production of the programs in the television and radio studios.

BUSINESS ADMINISTRATION—GENERAL

BS. 610—Managerial Accounting. 3 credits.
9:20 Daily MAT 225 DR. DA-VAULT

Designed for M.B.A. students. Emphasizes periodic income measurement and relation of accounting techniques to control of business operations. Includes a brief survey of relations of management to public accounting and effect of federal income taxes on management decisions.

BS. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange.

BUSINESS EDUCATION

BEN. 81.—Introductory Typewriting. 2 credits.
8:10 Daily and 2 hours to arrange NRN 306 JONES, R. L.

Skill in typewriting developed through practice on personal and business problems.

BEN. 91.—Introductory Shorthand. 3 credits.
11:40 Daily and 2 hours to arrange NRN 306 JONES, R. L.

The theory of Gregg Shorthand is completed, using the functional method.

BEN. 181.—Advanced Typewriting. 2 credits. Prerequisite: BEN. 81 or BEN. 82 or permission of department.
10:30 Daily and 2 hours to arrange NRN 306 JONES, R. L.

Provides more intensive training in typewriting.

BEN. 191.—Shorthand Dictation. 3 credits. Prerquisite: BEN. 91 or BEN. 92 or permission of department.
12:50 Daily and 2 hours to arrange NRN 306 DODSON, G. A.

Dictation developed; emphasis on speed, accuracy, and shorthand skills.

BEN. 291.—Shorthand Dictation and Transcription. 3 credits. Prerequisites: BEN. 181 and 191, or permission of department.
9:20 Daily and 4 hours to arrange NRN 306 DODSON, G. A.

Dictation and transcription are emphasized.

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*Credit assigned must be shown on course assignment card.

BEN. 352.—Office Machine Techniques. 3 credits. Prerequisite. BEN. 81 or permission of department.
11:40 Daily and 4 hours to arrange NRN 305 DODSON, G. A.

The voice-writing machines, duplicating machines, adding machines and calculating machines are studied, both as to techniques and operation. The student will be given opportunity to develop skill in the operation of these machines.

CHEMICAL ENGINEERING

CG. 347.—Industrial Stoichiometry. 3 credits. Prerequisite or Corequisite: CY. 331, MS. 353, PS. 205.
10:30 Daily MIL 9
Discussion: 2:00 to 4:10 F MIL 9

Industrial processes and calculations, weight balances, gas calculations, combustion processes, vapor pressure, humidity, etc.

CG. 356.—Principles of Chemical Engineering II. 3 credits. Prerequisite: CG. 355.
9:20 Daily MIL 9

The fundamental chemical engineering operations: Flow of fluids, heat transfer, evaporation, humidity and air conditioning, and drying.

CG. 364.—Chemical Engineering Thermodynamics I. 3 credits. Prerequisite: MS. 354. Corequisites: CY. 402, CG. 356.
8:10 Daily MIL 9

The first two laws of thermodynamics and their application to Chemical Engineering.

GRADUATE COURSES

CG. 612.—Special Topics in Chemical Engineering. 3 credits.
11:40 Daily MIL 9

Selected advanced level topics in the area of mass, momentum and heat transfer.

CG. 641.—Heat Transmission. 3 credits.
7:00 Daily MIL 9

The extension of elementary principles to more advanced problems in steady and unsteady heat flow to fluids and solids.

CG. 699.—Research and Master's Thesis. 0 to 6 credits.*

CG. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*

CHEMISTRY

CY. 215.—Introductory Chemistry. 3 credits. Corequisite: MS. 105 or C-42.
(Register for the Lecture Section and one Discussion Section)
Lecture Section 12:50 Daily LEI 207 COLGATE, S. O.
Discussion Sections:
Section 11 8:10 W F LEI 154
Section 12 9:20 W F LEI 212

An introduction to the elementary principles of modern chemistry. Designed for students who are not prepared to take CY 217 as a first college course. This course will not count for credit toward the B.S. in Chemistry degree.

CY. 217.—General Chemistry and Qualitative Analysis. 3 hours and 3 hours laboratory. 4 credits. The first half of CY. 217-218. Prerequisites: CY. 215

*Credit assigned must be shown on course assignment card.

with a grade of C or better) or 1 credit in high school chemistry, 3 credits in high school mathematics, and a total percentile rating on the Florida 12th grade testing program of 400 or better. Prerequisite or corequisite: one semester of college mathematics. (Register for the Lecture Section, one Discussion Section and the Laboratory Section).

Lecture Section 8:10 T W Th F LEI 212 HANRAHAN, R. J.
Discussion Sections:
Section 11 8:10 M LEI 142
Section 12 10:30 M LEI 142
Laboratory Section 111 12:50-4:10 T Th LEI 136

Principles of chemistry; the descriptive chemistry of familiar elements and inorganic compounds from a structural point of view; and introduction to ionic separations and the detection of selected ions.

CY. 218.—General Chemistry and Qualitative Analysis. 4 credits. (Register for the Lecture Section, one Discussion Section and the Laboratory Section). The second half of the course CY. 217-218.

Lecture Section 10:30 T W Th F LEI 207 STOUFER, R. C.
Discussion Sections:
Section 11 8:10 M LEI 212
Section 12 9:20 M LEI 212
Section 13 11:40 M LEI 212
Laboratory Section 111 12:50-4:10 W F LEI 138

CY. 302.—Organic Chemistry. 4 credits. The second half of the course CY. 301-302

10:30 Daily LEI 212 BUTLER, G. B.
12:50-4:10 T Th LEI 238

CY 331.—Introductory Quantitative Analysis. 4 credits Prerequisite: Cy. 123 or Cy. 218

8:10 T W Th F LEI 142 STEARNS, T. W.
12:50-4:10 T W Th F LEI 108 and 112

Theoretical principles and laboratory technique involved in quantitative determinations. Determinations include gravimetry, acidimetry and alkalimetry, oxidimetry and iodimetry.

CY. 362.—Organic Chemistry. 3 credits. Prerequisites: CY. 122 or CY. 218. Permission to take CY. 362 without taking CY. 363 must be obtained from the Head of the Department.

10:30 Daily LEI 142 RODERICK, W. R.

A brief elementary course embracing the more important aliphatic and aromatic compounds.

CY. 363.—Organic Chemistry. 2 credits. Corequisite CY. 362.

12:50-4:10 T W Th F LEI 236

The preparation of aliphatic and aromatic compounds.

CY. 400.—Chemistry for Teachers. 6 credits. Prerequisite: one year of college chemistry.

8:10-10:20 Daily LEI 207 LIPPINCOTT, W. T.
11:40 Daily LEI 207
12:50-4:10 T Th LEI 138 LIPPINCOTT, W. T.

This course is designed primarily for teachers who wish to expand either their background in chemistry or to refresh themselves with a modern approach. It will consist of a combination of lecture and laboratory work, reviewing fundamentals of chemistry and stressing recent developments and techniques in the field.

CY. 402.—Physical Chemistry. 3 credits. Permission to take CY. 402 without CY. 406 must be obtained from the Head of the Department unless the student is a Physics major.
9:20 Daily LEI 142 REID, C. E.

The second half of the course CY 401-402.

CY. 406.—Physical Chemistry. 1 credit.
12:50-4:10 T Th LEI 204

Equilibrium, kinetic and electrical measurements.

GRADUATE COURSES

CY. 611.—Structural Inorganic Chemistry. 2 credits. The first half of the course CY. 611-612.
9:20 T W Th F LEI 339 RYSCHKEWITSCH, G. E.

Modern theory of atomic and molecular structure as applied to inorganic systems, acid-base theory, non-aqueous, oxidation-reduction phenomena, and introduction to complex compounds and ions.

CY. 633.—Instrumental Analysis. 3 credits.
10:30 T W Th F LEI 339 WINEFORDNER, J. D.
Laboratory to arrange.

An introduction to optical and electrochemical methods as applied to the analysis of solutions.

CY. 699.—Research and Master's Thesis. 0-6 credits.*

CY. 799.—Research and Doctoral Dissertation. 1-12 credits.*

CIVIL ENGINEERING

CL. 326.—Statics of Simple Structures. 4 credits. Prerequisite: EM. 365.
8:10 Daily ENG 312
Laboratory 9:20-12:50 T Th ENG 312

Application of the methods of statics to structural analysis; a correlation between graphical and analytical methods; moments; sheers; reactions; resultants; stress diagrams, and influence lines for statically determinate structures.

GRADUATE COURSES

CL. 630.—Problems in Sanitation. 3 credits. Prerequisites: CL. 329, CL. 429 and permission of instructor.
To be arranged.

CL. 699.—Research and Master's Thesis. 0-6 credits.*

CL. 799.—Research and Doctoral Dissertation. 1-12 credits.*

DAIRY SCIENCE

DY. 420.—Problems in Dairy Technology. 3 credits.
To arrange.

Qualified students may choose an approved problem covering some phase of dairy technology.

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*Credit assigned must be shown on course assignment card.

GRADUATE COURSES

DY. 623.—Problems in Dairy Production. Up to 3 hours per semester, and a maximum of 6 credits toward the M.S.A. degree and 9 hours toward the Master of Agriculture degree.

To arrange.

Special topics on research in Dairy Husbandry.

DY. 699.—Research and Master's Thesis. 0 to 6 credits.*

ECONOMICS

ES. 201.—Basic Economics. 3 credits.

(Register for one section only.)

Section 1 7:00 Daily MAT 216 SIMMONS, A.
Section 2 10:30 Daily MAT 102 SIMMONS, A.

The nature of economics and economic concepts and institutions; emphasis on the accounting, analytical, and policy aspects of national income and product, as well as public finance, money and banking, and international trade.

ES. 202.—Basic Economics. 3 credits.

Section 1 8:10 Daily MAT 10 BRADBURY, R. W.

Theories of production, determination of prices and distribution of income in regulated and unregulated industries. Attention is also given to the problem of industrial relations, monopolies, and to comparative economic systems.

ES. 203.—Elementary Statistics. 4 credits. Prerequisite: C-42 or equivalent.

10:30 Daily MAT 118 ANDERSON, M. D.
1:00-3:10 T Th MAT 120

The statistical method as a tool for examining and interpreting data; acquaintance with fundamental techniques used in business and economics. Several exercises in the laboratory involve the use of machine tabulation.

ES. 321.—Money and Banking. 3 credits. Prerequisite: ES. 201.

(Register for one section only.)

Section 1 8:10 Daily MAT 111 WELLS, J. D.
Section 2 11:40 Daily MAT 112 WELLS, J. D.

Money systems and standards; factors determining the money supply with emphasis on the role of commercial and central banks and fiscal policy; relationships between money, prices, production and employment.

ES. 327.—Public Finance. 3 credits. Prerequisite: ES. 201.

10:30 Daily MAT 10 KOFOGLIS, M. Z.

Principles governing expenditures of modern government; sources of revenue; public credit; fiscal policy; principles and methods of taxation and financial administration.

ES. 347.—Principles of Foreign Trade. 3 credits. Prerequisite: ES. 201.

11:40 Daily MAT 116 BRADBURY, R. W.

Significance of geographic, economic, social, and political influences; current practices and tendencies in foreign trade; products of international commerce, tariffs and other barriers to world trade.

ES. 372.—Labor Problems. 3 credits. Prerequisite: ES. 202.

8:10 Daily MAT 114 FRISTOE, C. W.

Insecurity, wages and income, hours, substandard workers, industrial conflict, unionism in its structural and functional aspects; personnel management, employee representation, employers' associations; labor legislation, settlement of industrial disputes.

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*Credit assigned must be shown on course assignment card.

ES. 407.—Economic Principles and Problems. 3 credits. Prerequisites: ES. 201-202.

10:30 Daily MAT 11 SIEVERS, A. N.

An advanced course in economic theory, dealing especially with the theories of production, price determination, and income distribution and their application to a selected list of current economic problems.

ES. 409.—Comparative Economic Systems. 3 credits.

9:20 Daily MAT 213 SIEVERS, A. N.

The economics of capitalism, socialism, communism, and fascism. The United States, Soviet Russia, England, Nazi Germany, and Fascist Italy are compared on the basis of industrial production, agriculture, exchange, credit and banking, income distribution, the status of labor, and international trade. Marxian Socialism is also considered briefly.

ES. 429.—Introduction to Business Cycles. 3 credits. Prerequisite: ES. 321.

9:20 Daily MAT 111 JACKSON, E. L.

An introduction to the principal theories of the business cycle including also a description of the various types of cycles and an examination of the important remedies that have been proposed.

GRADUATE COURSES

ES. 611.—The Development of the American Economy Since 1860. 3 credits.

M 2:00-5:20, W 2:00-4:10 LIB 417 TUTTLE, F. W.

The development of the westward movement and the closing of the economic frontier. The development of a capitalistic economy and the trend toward economic and financial imperialism. Economic problems of the wars of 1914-18 and 1939-45, and postwar economic adjustments, domestic and foreign.

ES. 622.—Money, Prices, and Business Cycles. 3 credits. Prerequisite: ES. 321.

To arrange JACKSON, E. L.

An analytical survey of the economic instabilities in capitalistic society, with emphasis upon forces operating to bring about changes in the general level of prices, including prices of productive agents, employment, and income.

ES. 692.—Neo-Classical Economics. 3 credits. The second half of the course ES. 691-692.

T 2:00-5:00, Th 2:30-4:30 LIB 417 BLODGETT, R. H.

Analysis, criticism, and restatement of neo-classical theories concerning the distribution of income. Rent, interest, wages, profits, personal distribution, supplementary distribution, and non-capitalistic distribution will be considered. The writings of Marshall, Hicks, Cassel, Boulding, Pigou, Fisher, Douglas, Knight, Stigler, and Schumpeter provide the background for the discussion.

ES. 699.—Research and Thesis. 0 to 6 credit hours.*

To arrange

Directed research and writing for the M.A. degree, taken toward the end of the student's graduate program for credit in addition to the 24 hours required for the Master's degree.

ES. 799.—Research and Doctoral Dissertation. 1 to 6 hours credit.*

To arrange.

Directed research and writing for the Ph.D. degree, taken toward the end of the student's graduate program for credit in addition to the hours of regular courses required by the candidate's supervisory committee for the doctor's degree.

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*Credit assigned must be shown on course assignment card.

EDUCATION—GENERAL

ED. 418.—Audio-Visual Materials of Instruction. 3 credits.
8:10 Daily NRN 209 WINSOR, D. L.

A general course for teachers at all grade levels. Presents sources and methods of using audio-visual materials of instruction.

ED. 500.—Student Teaching, I. 3 credits. Prerequisite: approval of department head.
To arrange NRN 330 SCRAFFORD, R. A.

Supervised observation, participation, and teaching under the guidance of a selected classroom teacher.

ED. 501.—Student Teaching, II. 3 credits. The second half of the course ED. 500. Prerequisite: approval of department head.
To arrange NRN 330 SCRAFFORD, R. A.

GRADUATE COURSES

NOTE: Orientation Meeting for all graduate students in Education, Thursday, June 23, 1960, at 7:00 p.m. in Norman Auditorium. This meeting will be devoted to a discussion of policies and programs for graduate students in the College of Education.

ED. 600.—The School Curriculum. 3 credits.
10:30 Daily NRN 143 WILES, K. and HAINES, A.

An analysis of philosophic and research bases underlying the development of the total school program from kindergarten through community college. Basic curriculum course for all graduate students.

ED. 630.—Individual Work. 3 credits.
Section 2 To arrange NRN 134A FOSTER, C. R.

ED. 651.—Audio-Visual Education. 3 credits.
9:20 Daily NRN 209 CATE, C. A.

The selection, evaluation and use of audio-visual materials, with emphasis upon projected still and sound motion pictures.

ED. 652.—Production and Utilization of Audio-Visual Materials. 3 credits. Prerequisite: ED. 651 or consent of instructor.
10:30 Daily NRN 209

ED. 653.—Organization and Operation of Materials-of-Instruction Program. 3 credits.
11:40 Daily NRN 209 CATE, C. A.

ED. 659.—Laboratory in Corrective Reading. 6 credits. Prerequisite or corequisite: EDE. 675.
10:30-12:40 Daily AND 310 SPACHE, G. D.

ED. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange. NRN 134A FOSTER, C. R.

ED. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange NRN 134A FOSTER, C. R.

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*Credit assigned must be shown on course assignment card.

EDUCATION—ADMINISTRATION AND SUPERVISION

EDA. 501.—The Teachers Role in the Administrative Process. 3 credits.
9:20 Daily NRN 226 SIMMONS, J. B.

GRADUATE COURSES

EDA. 600—Educational Organization and Administration. 3 credits.
Section 1 8:10 Daily NRN 142 EGGERT, C. L.
Section 2 10:30 Daily NRN 138 EGGERT, C. L.

EDA. 601.—Organization and Administration of Elementary Schools. 3 credits.
2:00 Daily NRN 222 KIMBROUGH, R. B.

EDA. 602.—Organization and Administration of Secondary Schools. 3 credits.
11:40 Daily NRN 226 KIMBROUGH, R. B.

EDA. 603.—Public School Business Administration and Finance. 3 credits.
12:50 Daily NRN 222 JOHNS, R. L.

EDA. 604.—Legal Phases of Public School Administration. 3 credits.
7:00 Daily NRN 222 LEPS, J. M.

EDA. 607.—Administration of Teacher Personnel. 3 credits.
11:40 Daily NRN 201 SIMMONS, G. B.

EDA. 609.—Problems in School Administration and Supervision. 3 credits.
To arrange NRN 218 JOHNS, R. L.

EDA. 610.—Organization and Administration of Adult Education. 3 credits.
10:30 Daily NRN 114

EDA. 630.—Individual Work. 3 credits.
To arrange NRN 218 JOHNS, R. L.

EDA. 631.—Educational Leadership I.** 3 credits.
8:10 Daily NRN 43 HASS, C. G. & COOPER, J.

EDA. 632—Educational Leadership II.** 3 credits.
9:10 Daily NRN 43 HASS, C. G. & COOPER, J.

EDA. 633.—Methods and Problems of Supervision. 3 credits. Prerequisite: EDA. 631 or EDA. 634.
8:10 Daily NRN 138 WILES, K.

EDA. 702.—The School Plant. 3 credits.
10:30 Daily NRN 222 LEPS, J. M.

EDUCATION—ELEMENTARY

EDE. 400.—Problems of Instruction. 3 credits.
7:00 Daily NRN 201 CALLIS, A.

The course in elementary curriculum required for certification to teach in grades 1-12 in certain specialized fields.

**EDA. 631 and EDA 632 must be taken concurrently.

EDE. 550.—The Teaching of Arithmetic. 3 credits.
11:40 Daily NRN 207 AMBROSE, E.

The purpose of the course is to help teachers of elementary and junior high schools gain an understanding of arithmetic concepts, symbolism, and teaching materials and procedures.

EDE. 570.—Teaching of Reading. 3 credits.
Section 1 9:20 Daily NRN 207
Section 2 8:10 Daily NRN 207

A comprehensive survey of the problems of teaching reading in all grades and practical procedures for attacking these problems.

EDE. 600.—Elementary School Curriculum. 3 credits.
10:30 Daily NRN 201 CALLIS, A.

A survey of the content and methods of the elementary school curriculum. Offered primarily for students who have not taken a course in elementary curriculum and who have not had teaching experience in the elementary schools; also the first course in elementary curriculum for students majoring in administration.

EDE. 601.—Practices in Elementary Education, I. 3 credits.
10:30 Daily NRN 207 GREEN, E.

A study of practices in the elementary school in relation to fundamental principles of curriculum development. This is the basic elementary curriculum course for Master's program in Elementary Education.

EDE. 602.—Practices in Elementary Education, II. 3 credits.
8:10 Daily NRN 222 GREEN, E.

Emphasis is placed upon an interdisciplinary approach to problems in social learnings of elementary children.

EDE. 603.—Early Childhood Education, I. 3 credits.
11:40 Daily YON MC CRACKEN, J.

To assist teachers of children of nursery school and kindergarten age.

EDE. 604.—Early Childhood Education, II. 3 credits.
To arrange** YON MC CRACKEN, J.

Problems in working with children in the nursery school and kindergarten.

EDE. 660.—Science Education in the Elementary School. 3 credits. Prerequisite: EDE. 560 or equivalent, or permission of instructor.
11:40 Daily NRN 142 SHECKLES, M.

EDE. 671.—Language Arts in the Elementary School—Creative Expression. 3 credits.
Section 1 8:10 Daily NRN 201 CAREY, J.

Emphasis upon literature for young children and the arts related to it. These arts include illustrations, dramatization, puppetry, and other dramatic forms of story telling, creative writing, and evaluation and study of children's books in terms of their interests and needs.

EDE. 675.—Trends in Teaching of Reading. 3 credits.
9:20 Daily NRN 201 CAREY, J.

Analysis of trends in the teaching of reading as shown in current methods and research. Includes consideration of purposes and aims, skills and attitudes. Informal and formal reading tests.

**Current problems in teaching science in elementary schools, new materials and techniques of teaching, recent developments in the sciences and their implications.

*All students enrolled in EDE 604 must arrange for 2 consecutive hours daily participation between 8 and 11 a.m. in the P. K. Yonge Laboratory School.

EDE. 703.—Seminar in Elementary Education, II. 3 credits.
1:30 to 4:30 M W HILLIARD, P.

Opportunity (a) to make a critical examination of current research, (b) to cooperate with advanced students in other fields of education to provide an over-view of the total program in education and (c) to work cooperatively on special projects. Staff course.

EDUCATION—FOUNDATIONS

EDF. 225.—Social Foundations of Education. 3 credits.
Section 1 8:10 Daily NRN 203
Section 2 10:30 Daily NRN 232
Section 3 11:40 Daily NRN 232

A study of education as a function of the social setting.

EDF. 245.—Human Growth and Development. 3 credits.
Section 1 7:00 Daily NRN 236 WATKINS, L.
Section 2 12:50 Daily NRN 236 LAIRD, D.
(Reserve time for observation during the forenoon.)

Effects of physical growth, the family, peer relationships, and the school on the development of adequate personalities.

EDF. 300.—History of Education in the United States. 3 credits.
10:30 Daily NRN 236

The historical development of our schools is traced with the implications on this development for the role of today's schools in its broad economic, sociological and psychological significance.

EDF. 360.—Elementary Statistical Methods in Education. 3 credits.
2:00 Daily NRN 228 HINES, V.

Application of selected techniques to organization and interpretation of educational data.

EDF. 440.—Dynamics of Human Development. 3 credits.
8:10 Daily NRN 236 WATKINS, L.
(Reserve time for observation in the forenoon.)

Growth and development of children into mature personalities.

EDF. 442.—Educational Psychology. 3 credits.
11:40 Daily NRN 236 LAIRD, D.
(Reserve time for observation in the forenoon.)

Application of phychological principles to the educative process; individual differences, principles of learning; transfer of training; the nature of reasoning.

EDF. 450.—Measurement and Evaluation in Education. 3 credits.
10:30 Daily NRN 228

Study of basic principles and methods of measurement; evaluation of pupil learning in school.

GRADUATE COURSES

EDF. 600.—History of Education. 3 credits.
9:20 Daily NRN 236 LEWIS, H.

A survey of educational theories and practices taken in their cultural setting from primitive time to the present.

EDF. 610.—Democracy and Education. 3 credits.
11:40 Daily NRN 228

A study of the reciprocal relationships of democracy and education.

EDF. 620—Socio-Economics Foundations of Education. 3 credits.
Section 1 7:00 Daily NRN 232 HINES, V.
Section 2 8:10 Daily NRN 232 BAKER, M.

The socio-economic bases for education are comprehensively surveyed.

EDF. 641.—Educational Psychology—Personality Dynamics. 3 credits.
Section 1 8:10 Daily NRN 228 MALPASS, L.
Section 2 9:20 Daily NRN 228 MALPASS, L.

An examination of the dynamics of behavior and its implication for education.

EDF. 643.—Educational Psychology—Learning Theory. 3 credits.
7:00 Daily NRN 228 SPEARS, W.

Different theories of learning will be studied and evaluated. The student will be expected to make a synthesis of the implications of these theories for teaching.

EDF. 660.—Educational Statistics. 3 credits.
10:30 Daily NRN 203 SCATES, D.

Statistical methods as applied to educational data and problems are systematically studied.

EDF. 720.—School and Society. 3 credits.
9:20 Daily NRN 203 CURRAN, R.

Provides a social and philosophic frame of reference through a rigorous study of the society in which education takes place and the implication of this society for the functioning of the school. Conducted on a seminar basis. Limited to students in the sixth year program of teacher education and candidates for the doctor's degree in education.

EDF. 760.—Techniques of Research. 3 credits.
11:40 Daily NRN SCATES, D.

Training is given in identifying research problems, selecting and organizing useful means for research, methods of gathering data, and best practices for interpreting and reporting observed phenomena.

EDUCATION—PERSONNEL SERVICES

EDP. 300.—Principles and Practices for Teaching Exceptional Children. 3 credits. Prerequisite: EDF. 245 or equivalent.
11:40 Daily NRN 101 MORGAN, A. E.

Incidence, causes, diagnosis, agencies for referral, and recommended teaching procedures for the types of exceptional children found in public schools are considered.

EDP. 500.—Materials and Methods for Teaching Slow Learners. 3 credits. Prerequisite: EDP. 300 or PSY. 312.
9:20 Daily NRN 101 BAKER, S. H.

Curricular materials are developed which can be used to teach children who are mentally handicapped at various maturation levels in the regular classroom, in special classes and schools.

EDP. 504.—Therapeutic Care of Crippled Children. 3 credits.
8:10 Daily NRN 101 MORGAN, A. E.

The interpretation of medical and psychological reports. Rehabilitation through physical education, physical therapy, and occupational therapy is considered. Vocational guidance is an important phase of this course.

EDP. 600.—Teaching Exceptional Children. 3 credits. Prerequisite: EDP. 300 or PSY. 312.
12:50 Daily NRN 101 BAKER, S. H.

An advanced course in the care, treatment, and education of children with problems and handicaps.

EDP. 603.—Education of the Gifted Child. 3 credits.
10:30 Daily NRN 101

Definitions of giftedness, characteristics of gifted children, school opportunities and outside of school influence which effect the achievement of gifted children.

EDP. 610.—Principles of Guidance and Personnel Work. 3 credits. Prerequisite: or corequisite: EDF. 641.
Section 1 9:20 Daily NRN 28 STEVENS, D. F.
**Section 2 To arrange
**Section 3 To arrange

An introduction to the field of guidance and personnel work.

EDP. 611.—Occupational and Educational Information. 3 credits.
11:40 Daily NRN 28 MORRIS, C. E.

Studying occupations, sources of information concerning employment conditions, job requirements, training facilities, occupational trends; evaluation of occupational literature; use of occupational information in counseling.

EDP. 612.—Techniques of Guidance and Personnel Work. 3 credits.
Section 1 9:20 Daily NRN 114

A survey of guidance practices for teachers, supervisors, administrators and other school personnel not majoring in guidance and personnel work.

EDP. 613.—Personnel Testing. 3 credits. Prerequisite: EDF. 360 or EDF. 450, or permission of instructor.
10:30 Daily NRN 28 SPEARS, W.

A study of typical psychological tests used in guidance and personnel work, with emphasis on evaluating these instruments and on their construction, standardization and application.

EDP. 614.—Case Studies in Counseling. 3 credits.
Prerequisites: EDF. 641, EDP. 610, and EDF. 450 or equivalent.
12:50 Daily NRN 207 MORRIS, C. E.

Competency is developed in the application of counseling theory and techniques.

EDP. 616.—Practicum in Counseling. 3 credits. Advanced written application for admission to the course is required. May be taken concurrently with EDP. 617.
To arrange SOPER, D. W.

Experience in individual counseling will be provided under supervision.

EDP. 617.—Practicum in Counseling. 3 credits. May be taken concurrently with EDP. 616.
To arrange

EDP. 618.—The Organization and Administration of Guidance and Personnel Programs. 3 credits. Prerequisites: EDP. 610, EDF. 641, EDF. 450.
12:50 Daily NRN 28

Methods of organizing and administering guidance and personnel programs in educational institutions and allied agencies.

**Open only to students enrolled in Guidance Institute described in the Graduate section of this bulletin.

EDP. 660.—Problems in Student Personnel Work.** 3 credits.
Section 1 To arrange
Section 2 To arrange
Section 3 To arrange
Section 4 To arrange

An inservice education course open only to persons engaged in personnel work in education or closely allied areas.

EDUCATION—SECONDARY

EDS. 303.—The Junior High School. 3 credits.
11:40 Daily NRN 150 WHETSTONE, R. W.

The background, organization, content and methods of junior high school education.

EDS. 305.—The Secondary School Today. 3 credits.
Prerequisites: EDF. 245, EDF. 225, or equivalent, and official approval for admission to the Advanced Professional Sequence in Education.
Section 1 9:20 Daily YON MYERS, R. B.
Section 2 11:40 Daily NRN 138 SCRAFFORD, R. A.

Purposes and organization of the secondary school, curriculum, teacher's role, adolescent behavior and application of learning theory, guidance, classroom management, student activities, evaluation and reporting student progress, educational issues, and similar topics will be organized to help the student acquire certain basic competencies for teaching.

EDS. 480.—English in the Secondary School (Identical with EH. 480). 3 credits.
8:10 Daily NRN 226 MC GUIRE, V.

Designed to help teachers of English by a review of the content, both the language and the literature, of secondary school English, with attention to some of the methods widely used in high school English courses.

GRADUATE COURSES

EDS. 550.—The Teaching of Mathematics in the Junior High School.** 3 credits.
9:20 Daily PEA 10 KIDD, K. P.

Consideration of problems of mathematics curriculum at the junior high school level, and approaches and materials for teaching various mathematics concepts.

**Students who register for EDS. 550 must also register for MS. 350.

EDS. 585.—Foreign Languages in the Secondary School. 3 credits. Prerequisite: In-service status as a teacher of foreign language. (Co-requisite: EDS. 586 or FLE. 586).
7:00 Daily AND 5 WERSHOW, I. R.

General problems of language learning and problems peculiar to the teaching of foreign languages in high school and junior college. Historic methods of language teaching. Newer methods, including use of audio-visual materials.

EDS. 586.—Foreign Language for Teachers. 3 credits. Prerequisite: In-service status as a teacher of foreign language. (Corequisite: EDS. 585 or FLE 585).
9:20-11:30 Daily AND 5 KURTH, A. L. (French)

**Open only to students enrolled in Guidance Institute described in the Graduate section of this bulletin.

9:20-11:30 Daily AND 4 BRUNET, J. (Latin)
9:20-11:30 Daily AND 18 RAMIREZ, A. (Spanish)

Designed to offer help in all phases of instruction to in-service teachers of foreign languages. Intensive training to improve oral fluency in a foreign language and instruction in the cultural and behavior patterns of the foreign people will be given. (As a summer workshop in cooperation with EDS. 585 or FLE. 585 the theory of adio-visual materials and the principles of linguistic science and language learning will be demonstrated.)

EDS. 590.—Student Activities in the Secondary School. 3 credits.
11:40 Daily NRN 214 WHETSTONE, R. W.

Available for graduate major credit. An exploration of the purposes, phases, and operations of student activities. Designed to assist student activity directors, activity sponsors, and principals in improving the activities program in their school.

EDS. 601.—The Junior High School Curriculum. 3 credits.
10:30 Daily NRN 226 BROWNE, E. B.

Teachers, principals, and supervisors are given an opportunity to analyze and to evaluate the curriculum offerings in the modern junior high school. Emphasis will be placed on developing a school program to meet the needs of early adolescents.

EDS. 602.—The Secondary School Curriculum. 3 credits.
9:20 Daily NRN 142 BROWNE, E. B.

An analysis of the scope, functions, and types of secondary school curricula. Consideration will be given to criteria for judging the secondary school curriculum and ways of improving existing programs.

EDS. 603.—Community College Education. 3 credits.
11:40 Daily NRN 114 DAVIS, E.

An analysis of the program and problems of the community college.

EDS. 604.—Curriculum Development Laboratory. 3 credits.
(Must be taken concurrently with FI 324)
1:00-3:00 Daily BRO East Recreation Room CREWS, J. W. and RICHARDSON, J. G.

Guided experiences in developing resource units for teaching.

EDS. 620.—Teaching Office Machines. 3 credits.
11:40 Daily and 4 hours to arrange. NRN 305 DODSON, G. A.

Methods of teaching the operation of machines commonly used in business offices.

EDS. 624.—Materials and Methods of Teaching General Business. 3 credits.
9:20 Daily NRN 305 MOORMAN, J. H.

Objectives, content, resource materials, and methods of teaching general business in the junior and senior high schools are studied.

EDS. 640.—Social Studies in the Secondary School. 3 credits.
11:40 Daily NRN 222

Consideration of the problems of teachers, supervisors, and principals in teaching social studies in grades seven through fourteen. Trends, basic principles, recent improvements in methods and materials will be emphasized. Each student will be given opportunity to develop understandings and skills in a special problem in the social studies.

****EDS. 650.—Mathematics in the Secondary School.** 3 credits.
9:20 Daily PEA 11 GAGER, W. A.

Consideration of problems of mathematics curriculum and introduction at the senior high school level.

**Students who register for EDS. 650 must also register for MS. 400.

EDS. 660.—Science in the Secondary School. 3 credits.
7:00 Daily NRN 142 ARNOLD, L. A.

Current problems in teaching science in secondary schools and junior colleges. New materials and techniques of teaching and recent developments in the sciences and their implications.

EDS. 670.—Language Arts in the Secondary School. 3 credits.
9:20 Daily NRN 138 MCGUIRE, V.

Gives opportunity to principals, supervisors, graduate students, and in-service teachers to work on their own problems at the various levels in grades seven through fourteen. Present trends, basic principles, methods, and materials will be considered.

EDS. 675.—Cooperative Education. 3 credits.
10:30 Daily NRN 302 BERGENGREN, R. F.

The organization and coordination of Diversified Cooperative Training, Distributive Education, and Cooperative Business Education programs, including the role of the teacher-coordinator, the selection of training agencies, and the use of related studies.

EDS. 725.—Administration and Supervision of Business Education. 3 credits.
10:30 Daily NRN 305 MOORMAN, J. H.

Problems and duties of administrators and supervisors of business education are studied.

EDUCATION—VOCATIONAL AGRICULTURE

EDV. 306.—Vocational Education. 3 credits.
9:20 Daily NRN 150 GARRIS, E. W.

The development, function, and scope of vocational education as provided for by the National Vocational Education Acts of Congress.

GRADUATE COURSES

EDV. 612.—Philosophy and Administration of Vocational Education. 3 credits.
10:30 Daily NRN 150 GARRIS, E. W.

Basic principles for administering the program of vocational education on a national, state, and local level will be considered.

ELECTRICAL ENGINEERING

EL. 211.—Introduction to Electrical Engineering. 3 credits. Corequisites: PS. 206, MS. 354.
10:30 Daily ENG 334

Electrical fundamentals; analysis of basic d-c and a-c circuits; introductory transients; phasors; impedance and admittance.

EL. 302.—Electric Circuits Laboratory. 1 credit.
Section 1 12:50-4:10 M W ENG 424
Section 2 12:50-4:10 T Th ENG 424
The laboratory for corequisite course EL. 362, Electric Circuits II.

EL. 306.—Electronics Laboratory I. 1 credit.
Section 1 12:50-4:10 M W ENG 427
Section 2 12:50-4:10 T Th ENG 427

The laboratory for corequisite course EL. 346, Electronics I.

EL. 342.—Elements of Electrical Engineering. 3 credits. The second half of the course EL. 341-342. Prerequisite: EL. 341.
9:20 Daily ENG 346

For engineering students not majoring in electrical subjects. Single and polyphase rotating machinery; transformers and apparatus; elementary electronics.

EL. 346.—Electronics I. 3 credits. Corequisite: EL. 361
Section 1 8:10 Daily ENG 334
Section 2 9:20 Daily ENG 328

Physical principles of vacuum tubes, semiconductor devices, gas tubes and photo cells; characteristics of electron devices; analysis of basic electronic circuits.

EL. 350.—Electrical Laboratory. 1 credit. Corequisite: EL. 342.
12:50-4:10 T Th ENG 230

A laboratory course for engineering students not majoring in electrical subjects. Experimental studies and tests of alternating current apparatus, and elementary electronic devices.

EL. 361.—Electrical Circuits I. 3 credits. Prerequisite: EL. 211. Corequisite: MS. 423.
9:20 Daily ENG 420

Sinusoidal steady-state analysis; resonance; coupled circuits: linear active networks; polyphase circuits.

EL. 362.—Electrical Circuits II. 3 credits. Prerequisites: EL. 361, MS. 423
Section 1 8:10 Daily ENG 328
Section 2 9:20 Daily ENG 334

Fourier series and integral; transient analysis; complex frequency concept; Laplace transform; 2-terminal pair networks; impedance matching.

EL. 364.—Electric Circuits III. 3 credits. Prerequisite: EL. 362.
9:20 Daily ENG 224

Study of transmission line theory, including both power and communication lines with and without loss; electric wave filters.

EL. 403.—Electronics Laboratory II. 1 credit.
Section 1 12:50-4:10 M W ENG 436
Section 2 12:50-4:10 T Th ENG 436

The laboratory for the corequisite course EL. 473, Electronics II.

EL. 473.—Electronics II. 3 credits. Prerequisite: EL. 346.
8:10 Daily ENG 420

The second half of the series EL. 346-EL. 473.

EL. 493.—Electrical Design and Experimental Procedure. Variable credit.* Prerequisite: Approval of Instructor.
To arrange.

Special projects are studied and reports prepared thereon.

EL. 650.—Physical Electronics. 3 credits. Prerequisite: PS. 508 or equivalent.
To arrange.

Theory of operation and application of solid-state devices; principles of transistor action; oxide-coated cathodes; electro-luminescence; ferroelectrics and ferrites; piezoelectric devices.

EL. 692.—Special Topics in Electrical Engineering. Variable credit.*
To arrange.

Laboratory, lectures, or conferences covering specially selected topics in Electrical Engineering.

EL. 699.—Research and Master's Thesis. 0-6 credits.*

Directed research and writing. For students working toward a Master's degree.

EL. 799.—Research and Doctoral Dissertation. 0-6 credits.*

Directed research and writing. For students working toward a doctor's degree.

ENGINEERING GRAPHICS

EGR. 181.—Engineering Drawing. 3 credits. Corequisite: MS. 105.
Section 1 7:00 to 9:10 Daily ENG 514
Section 2 9:20 to 11:30 Daily ENG 514

The making, reading and interpretation of Engineering Drawings.

EGR. 182.—Descriptive Geometry. 3 credits. Prerequisite: EGR. 181.
Section 1 7:00 to 9:10 Daily ENG 500
Section 2 9:20 to 11:30 Daily ENG 500

The theory of orthographic projection and its applications to engineering problems.

EGR. 282.—Mechanism and Kinematics. 3 credits. Prerequisite: EGR. 182. Corequisite: PS. 205.
Section 1 8:10 M T W Th ENG 512
Laboratory 12:50 to 4:20 T Th ENG 518
Section 2 9:20 M T W Th ENG 512
Laboratory 12:50 to 4:20 M W ENG 518

A study of the mechanisms used in machinery and analysis of the motions obtained.

ENGINEERING MECHANICS

EM. 313.—Fluid Mechanics. 4 credits. Prerequisites: EM. 365, MS. 354.
9:20 Daily ENG 527
Laboratory 2:00 to 5:20 T Th RLA 100

Statics and dynamics of compressible and incompressible fluids. Flow through measuring devices and pipes and around immersed bodies. Bernoulli's theorem, viscosity effects, surface and form resistance, similarity and dimensional analysis, impulse-momentum principle.

EM. 365.—Engineering Mechanics—Statics. 3 credits. Prerequisites: PS. 205, EGR. 182. Corequisite: MS. 354.
Section 1 8:10 Daily ENG 430
Section 2 9:20 Daily ENG 430
Section 3 10:30 Daily ENG 430

Principles of statics; resultants and equilibrium of co-planar force systems; resultants and equilibrium of space force systems; trusses containing two force members; structures containing three force members; friction; centroids; moments of inertia.

EM. 366.—Engineering Mechanics—Dynamics. 3 credits. Prerequisites: EM. 365, MS. 354.
Section 1 8:10 Daily ENG 418
Section 2 9:20 Daily ENG 418
Section 3 10:30 Daily ENG 420
Section 4 11:40 Daily ENG 420

Dynamics of particles and rigid bodies for rectilinear translation, curvilinear translation, rotation and plane motion; mass moment of inertia; work and energy; impulse and momentum.

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*Credit assigned must be shown on course assignment card.

EM. 367.—Strength of Materials. 3 credits. Prerequisites. EM. 365, MS. 354.
Section 1 9:20 Daily ENG 428
Section 2 10:30 Daily ENG 428
Section 3 11:40 Daily ENG 428

Tension, compression and shear, stresses and strains; combined stresses; Mohr's circle; riveted joints; torsion; bending moments; stresses, and deflection of beams; eccentric loading; columns.

ENGLISH

EH. 133.—Effective Writing. 3 credits. Prerequisite: C-3, or permission of C-3 Course Chairman.
2:00 Daily D 120

Designed to aid the student to present his ideas in writing which is not only accurate and clear but pleasing and attractive to the reader. Qualified students are encouraged to do imaginative writing.

EH. 134.—Contemporary Reading. 3 credits. Prerequisite: C-3, or permission of C-3 Course Chairman.
10:30 Daily AND 20

Designed to aid the student in planning for himself a well-rounded program in reading, which will serve to keep him abreast of the best in contemporary thought. Some time will be spent in introducing each student to the bibliography and writing in the area of his special professional interest.

EH. 201.—Introduction to World Literature. 3 credits. Prerequisite: C-3.
10:30 Daily AND 204 BRYAN, R. A.

An introductory course on the backgrounds of English language and literature, with readings from selected masterpieces of the ancient, medieval, and renaissance worlds, from Homer to Cervantes.

EH. 215.—Introduction to American Literature. 3 credits. Prerequisite: C-3.
9:20 Daily AND 212 MILES, G. S.

A selection of major American writers from Benjamin Franklin to Robert Frost. Emphasis is placed on understanding and critical appreciation rather than on literary history.

EH. 217.—Introduction to English Literature: From the Beginnings to the End of the Seventeenth Century. 3 credits. Prerequisite: C-3.
8:10 Daily AND 210 BRYAN, R. A.

Critical study of masterpieces embodying the main lines of literary tradition in the period indicated.

EH. 255.—Business Communications. 3 credits. Prerequisite: C-3.
(Register for one section only.)
Section 1 7:00 Daily AND 210 LONG, S. G.
Section 2 9:20 Daily AND 204 HUNTER, J. P.

Instruction and practice on business letters and short reports; introduction to business and professional publications.

EH. 306.—Modern English Grammar. 3 credits. Prerequisite: C-3 and C-5.
(Register for one section only.)
Section 1 9:20 Daily AND 210 BOONE, L. P.
Section 2 10:30 Daily AND 212 MORRIS, A. C.

A systematic review of current English grammar, including attention to functional aspects of sentence structure, punctuation, and other problems of the mechanics of composition.

EH. 363.—Contemporary Literature: Drama. 3 credits. Prerequisite: C-3 and C-5.

8:10 Daily AND 212 VOWLES, R. B.

Recent and contemporary drama, with emphasis upon such major English and American playwrights as Shaw and Eugene O'Neill. The work of Ibsen and other Continental writers will be treated briefly.

EH. 365.—Contemporary Literature: Fiction. 3 credits. Prerequisite: C-3 and C-5.

12:50 Daily AND 212 LISCA, P.

The most important British and American writers of twentieth-century prose fiction, with major emphasis upon recent novelists.

EH. 402.—Shakespeare. 3 credits. Prerequisite: C-3, C-5, and one course in English or Speech.

10:30 Daily AND 210 ROBERTSON, C. A.

The great tragedies will be studied, notably **Hamlet, Othello, King Lear, Macbeth,** and **Antony and Cleopatra.**

EH. 480.—English in the Secondary School. (Identical with EDS. 480.) 3 credits. Prerequisite: C-3, C-5, and one course in English.

9:20 Daily MAT 3 DERRICK, C.

Designed to help prepare teachers by a study of the content, materials, methods, and objectives of the secondary English program.

EH. 491.—Children's Literature. 3 credits. Prerequisite: C-3 and C-5. (Register for one section only.)

Section 1 7:00 Daily AND 212 BOONE, L. P.
Section 2 11:40 Daily AND 212 GEHAN, F. E.

Designed to arouse a genuine interest in children's books and to aid the student in obtaining a critical knowledge of the literature.

EH. 496.—Major Writers of the Neoclassic Period. 3 credits. Prerequisite: C-3, C-5, and one course in English.

11:40 Daily AND 210 MURPHREE, A. A.

Selections from the best works of such writers as Dryden, Congreve, Addison, Swift, Pope, Fielding, Johnson, and Boswell.

EH. 498.—Major Writers of the Victorian Era. 3 credits. Prerequisite: C-3, C-5, and one course in English.

8:10 Daily AND 204 KIRKLAND, E. C.

Selections from the best works of such writers as Tennyson, Browning, Carlyle, Ruskin, Arnold, Dickens, and Thackeray.

EH. 501.—American Literature. 3 credits. May be taken for credit without EH. 502. Prerequisite: C-3, C-5, and one course in English.

11:40 Daily AND 204 BIGELOW, G. E.

Available for graduate major credit. A critical and historical survey of American literature from 1607 to 1865.

EH. 509.—Chaucer. 3 credits. Prerequisite: C-3, C-5, and one course in English.

12:50 Daily AND 210 PYLES, T.

Available for graduate major credit. Reading and critical study of the **Canterbury Tales;** Chaucer's English and its place in the development of the language.

GRADUATE COURSES

EH. 614.—The Renaissance in England. 3 credits.
11:40 Daily LIB 404 ORAS, A.

Poetry and prose of the 17th century through Milton.

EH. 630.—Individual Work. 3 credits. Prerequisite: 24 hours of English and approval of department head.
To arrange ROBERTSON, C. A.

Designed for graduate students majoring in English and needing work in subjects not available in currently offered courses. With change of content EH. 630 may be repeated for credit.

EH. 644.—The English Romantic Period. 3 credits.
9:20 Daily LIB 404 FOGLE

Chief emphasis on the work of Byron, Keats, and Shelley.

EH. 699.—Research and Master's Thesis. 0 to 6 credits.*

EH. 783.—Seminar in American Prose. 3 credits.
To arrange LIB 404 WARFEL, H. R.

EH. 799.—Research and Doctoral Dissertation. 1 to 12 credits.*

ENTOMOLOGY

EY. 501.—Plant Parasitic Nematodes. 3 credits. Prerequisite: EY. 303 or its equivalent.
10:30 M T W MCC 343 PERRY, V. G.
Laboratory: 12:50 to 4:00 M W MCC 346

Available for graduate major credit. A study of the morphology, taxonomy, life cycles, pathogenicity, and control of the plant parasitic nematodes.

EY. 631.—Morphology and Physiology of Nematodes. 2 credits. Prerequisite: EY. 303 or its equivalent.
Hours to be arranged.

A detailed anatomical study of the organs of nematodes and their vital functions.

EY. 699.—Research and Master's Thesis. 0-6 credits.*

Field or laboratory research of entomology problems. Results to be used in preparation of thesis.

EY. 799.—Research and Doctoral Dissertation. 1-6 credits.*

Field or laboratory research of entomology problems. Results to be used in preparation of dissertation.

FINANCE AND INSURANCE

FI. 260.—Principles of Insurance. 3 credits.
10:30 Daily MAT 213 CLINE, R. S.

The basic principles of risk and insurance designed to give students a general knowledge of the subject and to lay a foundation for future study.

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*Credit assigned must be shown on course assignment card.

FI. 324.—Investments for Individuals. 3 credits.
9:30-11:30 Daily Broward East Recreation Room CREWS, J. W. and RICHARDSON, J. G.

Designed for the non-Business Administration student, this course deals with the principal investment problems the individual faces. Cannot be used for credit for BSBA degree. Students registered for this course must register for EDS. 604 concurrently.

FI. 422.—Investment. 3 credits. Prerequisite FI. 427.
8:10 Daily MAT 216 MCFERRIN, J. B.

Nature of investments; investment policies; analysis of securities; the mechanics and mathematics of security purchases; factors influencing security prices, and the nature of the New York Stock Exchange.

FI. 427.—Corporation Finance. 3 credits.
9:20 Daily MAT 114 FRISTOE, C. W.

Forms of business enterprise; the instruments of business finance; financial problems relating to the operations of business.

FI. 630.—Individual Work in Finance. 3 credits. Prerequisite: Permission of the Department and of the Director of Graduate Studies.
To arrange.

A reading and/or research course in the several areas of finance as needed by graduate students. May be elected for full credit in subsequent semesters with change of content.

FI. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange.

FOOD TECHNOLOGY AND NUTRITION

FT. 499.—Special Problems in Food Technology and Nutrition. 1-3 credits.
To arrange.

Individual problems selected in various phases of food technology and nutrition.

GRADUATE COURSES

FT. 670.—Non-thesis Research in Food Technology and Nutrition. 1-6 credits.*

FT. 699.—Research and Master's Thesis. 0-6 credits.*

FOREIGN LANGUAGE

FLE. 585.—Foreign Languages in the Secondary School. 3 credits. Prerequisite: In-service status as a teacher of foreign language.
7:00 Daily AND 5 WERSHOW, I. R.

FLE. 586.—Foreign Language for Teachers. 3 credits. Pre-requisite: In-service status as a teacher of foreign language.
9:20-11:30 Daily AND 5 KURTH, A. L. (French)
9:20-11:30 Daily AND 4 BRUNET, J. (Latin)
9:20-11:30 Daily AND 18 RAMIREZ, A. (Spanish)

*Credit assigned must be shown on course assignment card.

FORESTRY

FY. 221.—Summer Camp. 5 credits.
Field

Summer camp covers the entire field of forestry. Students receive field instruction in surveying, cruising, silviculture, and forest management.

FY. 228.—Forest Mensuration. 3 credits.
Field
NOTE: This course will be given in conjunction with FY. 221.

FY. 431.—Forest Problems Seminar. Variable credit.*
To arrange

Supervised study and investigations in some particular phase of forestry or wildlife management.

GRADUATE COURSES

FY. 602.—Research Problems in Silviculture. 3 to 6 credits.*
To arrange.

Individual research on specific problems in silvics, forest tree seed, forest tree propagation, forest soils, forest ecology, and silvicultural practices.

FY. 603.—Research Problems in Wood Utilization. 3 to 6 credits.*
To arrange.

Individual research in wood technology, wood preservation, naval stores, small sawmill operation.

FY. 604.—Research Problems in Forest Economics and Management. 3 to 6 credits.*
To arrange.

Individual research in forest economics, forest finance, or forest management.

FY. 605.—Research Methods in Wildlife Management. 3 credits.
To arrange BECKWITH, S. L.

A detailed study of field and laboratory procedures used in wildlife research.

FY. 606.—Research Problems in Wildlife Management. 3 to 6 credits.*
To arrange BECKWITH, S. L.

Individual problems in the field of wildlife management.

FY. 699.—Research and Master's Thesis. 1 to 6 credits.*
To arrange.

FRENCH

FH. 134.—First-Year French. 3 credits. Prerequisite: FH. 133, or the equivalent.
9:20 M T W Th AND 5 FIORE, S.
Laboratory: 8:10 Daily AND 11

FH. 201.—Second-Year French. 3 credits. Prerequisite: FH. 134, or equivalent.
8:10 M T W Th AND 5 WENNBERG, B.
Laboratory: 9:20 Daily AND 11

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*Credit assigned must be shown on course assignment card.

FH. 202.—Second-Year French. 3 credits. Prerequisite: FH. 201, or equivalent.
12:50 M T W Th AND 5 WENNBERG, B.
Laboratory: 11:40 Daily AND 11

FH. 630.—Individual Work. 3 credits.
To arrange. AND 3-B KURTH, A. L.

FH. 699.—Research and Master's Thesis. 0-6 credits.*
To arrange.

FRUIT CROPS

FC. 341.—Citrus Growing. 3 credits. Prerequisites: BTY. 180 or C-6, or equivalent.
10:30 M T W Th MCC 9 ZIEGLER, L. W.
Laboratory 12:50-3:00 M MCC 105

Citrus production and methods of culture designed to fill the need of the general student in agriculture. It is not to be taken for credit by citrus majors, but is required of students majoring in Agricultural Education and Agricultural Engineering.

FC. 499.—Special Problems in Fruit Crops. 1-3 credits.
To arrange.

Open to Fruit Crops upper division students on consent of instructor. Individual research in the various phases of fruit production, propagation and processing.

GRADUATE COURSES

FC. 614.—Advanced Citriculture. 3 credits.
To arrange.

An advanced course in citrus growing, emphasizing the problems offered by varying sites, soils, climates, stocks and varieties.

FC. 670.—Non-thesis Research in Fruit Crops. 1 to 6 credits.*
To arrange.

FC. 699.—Research and Master's Thesis. 0-6 credits.*
To arrange.

FC. 799.—Research and Doctoral Dissertation. 1-6 credits.*
To arrange.

GENERAL SCIENCE

GL. 301.—Elementary School Science. 3 credits.
10:30 Daily NRN 142 SHECKLES, M.

The role of science in the development of elementary school children. Experience with the content, materials, and approaches of elementary school science.

GEOGRAPHY

GPY. 200.—Introduction to Geography. 3 credits.
(Register for one section only.)

*Credit assigned must be shown on course assignment card.

Section 1 8:10 Daily FLO 208 SRIVASTAVA, H. P.
Section 2 10:30 Daily FLO 208 SRIVASTAVA, H. P.

A study of the relationships between population, human activities and the physical world.

GPY. 305.—Geography of Florida. 3 credits.
10:30 Daily FLO 204 MARCUS, R. B.

The geographic conditions and human adjustments in the major regions of Florida. The natural environment, population, routes of communication, industries, resources, and strategic location in their geographical and historical aspects. Optional field trips.

GPY. 382. (Identical with ES. 382.)—Principles of Resource Utilization. 3 credits.
Prerequisite: GPY 200
8:10 Daily FLO 204 MARCUS, R. B.

A review of the natural and human resources of the United States followed by study of the wise and wasteful practices of exploitation and utilization of these resources. The principles of conservation with special reference to the South. Course designated to satisfy certification for social studies teachers.

GPY. 430.—Individual Work. 3 credits.
For undergraduates only. Prerequisite: 12 hours of Geography and consent of instructor.
To arrange.

Qualified students and the instructor concerned may choose a particular topic or problem for study. GPY 430 may be repeated for full credit with change of content.

GPY. 481.—Geography of the United States and Canada. 3 credits. Prerequisite: GPY. 200.
9:20 Daily FLO 208 DYER, D. R.

A survey of the continent north from the Rio Grande with special reference to the natural resources of the United States. The analysis of the major regions of the United States and Canada.

GPY. 630.—Individual Work. 3 credits.
To arrange.

A reading or research course in such areas of Geography as are needed by graduate students. May be elected for full credit in subsequent sessions with change of content.

GPY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange.

GPY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange.

GEOLOGY

GY. 203.—Elements of Physical Geology. 3 credits.
9:20 Daily FLO 209 RAPPENECKER, C.

A study of minerals and rocks and their formation, geological processes, land forms and their interpretation, and the application of geological knowledge to human affairs.

GY. 400.—Florida Geology for Teachers. 3 credits.
10:30 M T Th F FLO 209 BROOKS, H. K.
Laboratory: 2:00 to 6:00 M

Principles of physical and historical geology as applied to the geology and mineral resources of Florida.

*Credit assigned must be shown on course assignment card.

GY. 630.—Individual Work. 3 credits.
To arrange

GY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange

GERMAN

GN. 134.—First-Year German. 3 credits. Prerequisite: GN. 133, or the equivalent.
7:00 M T W Th AND 4 MAUDERLI, M. O.
Laboratory: 8:10 Daily AND 11

GN. 201.—Second-Year German. 3 credits. Prerequisite: GN. 134, or the equivalent.
8:10 M T W Th AND 4 JONES, O. F.
Laboratory: 9:20 Daily AND 11

GN. 202.—Second-Year German. 3 credits. Prerequisite: GN. 201, or the equivalent.
12:50 M T W Th AND 4 VALK, M. E.
Laboratory: 11:40 Daily AND 11

GN. 630—Individual Work. 3 credits.
To arrange. AND 3-B

GN. 699.—Research and Master's Thesis. 0-6 credits.*

HISTORY

HY. 152.—Florida History, 1860 to the Present. 3 credits.
8:10 Daily PEA 112

Florida during the Civil War and Reconstruction; the development of agriculture and industry, society and education; political reaction and the progressive era; the tourist trade, urbanization, and contemporary politics.

HY. 201.—History of World Civilizations to 1550. 3 credits.
9:20 Daily PEA 114 HABER, F. C.

A general introduction to the civilizations and cultures antecedent to the modern Western World. Designed to give an understanding of the development and meaning of western history from its origins through the Reformation.

HY. 245.—United States History to 1865. 3 credits.
10:30 Daily PEA 112

A survey of the political, economic, social and intellectual development of the United States from the founding of Britain's colonies in North America through the American Civil War.

HY. 246.—United States History, 1865 to the Present. 3 credits.
9:20 Daily PEA 112 THOMPSON, A. W.

Reconstruction, the Age of Big Business, the United States as a world power, World War I, the great depression and the New Deal, World War II and its aftermath will be studied in an interpretative survey.

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*Credit assigned must be shown on course assignment card.

HY. 599.—Special Study in History. 3 credits. Prerequisite: Permission of the Department.
To arrange.

Tutorial or pro-seminar study in various periods or topics within the areas of United States, Latin-American, European (including both Western Europe and Slavic Europe) and Asiatic history.

GRADUATE COURSES

HY. 630.—Individual Work. 3 credits.
To arrange.

A reading or research course in such areas of History as are needed by graduate students. May be elected for full credit in subsequent sessions with change of content.

HY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange.

HY. 799.—Research and Doctoral Dissertation. 1 to 12 credits.*
To arrange.

INDUSTRIAL ARTS

IN. 330.—Elementary Handcrafts. 3 credits.
8:10-10:20 Daily NRN 304-B WILLIAMS, D.

Creation of simple projects in such media as leather, textiles, clay, reed, plastics, lineoleum block, metal, wood, and native material.

IN. 331.—Handcrafts. 3 credits.
10:30-12:40 Daily NRN 304-B WILLIAMS, D.

Major areas include leather carving and tooling, metal etching, wood carving, pottery, plastics, and textiles.

IN. 440.—Industrial Arts Laboratory. 3 credits.
To arrange NRN 300 HAMPTON, I. P.

For advanced undergraduate students. Extension work in one of the certification areas in industrial arts.

GRADUATE COURSES

IN. 606.—History and Philosophy of Industrial Education. 3 credits.
8:10 Daily NRN 302 HAMPTON, I. P.

Historical background and educational philosophies with emphasis on modern concepts.

IN. 630.—Individual Work. 3 credits.
To arrange NRN 300 BERGENGREN, R. F.

Problems approved by the instructor.

IN. 625.—Advanced Industrial Arts Design. 3 credits.
11:40 Daily NRN 302 BERGENGREN, R. F.

Laboratory design practice in various media.

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*Credit assigned must be shown on course assignment card.

INDUSTRIAL ENGINEERING

IG. 371.—Job Analysis and Evaluation. 2 credits. Prerequisite: Upper Division Classification.

11:40 M T W Th ENG 343

Analysis of the several systems of determining the relative worth of jobs. Wage determination. Job evaluation plan installation and maintenance. Merit rating.

IG. 460.—Engineering Economy. 3 credits. Prerequisite: Engineering Classification.

8:10 Daily ENG 343

The economic aspect of technical projects stressing the importance of alternative solutions selected through economy, intangible and financial analyses.

IG. 463.—Specifications, Contracts, Ethics and Industrial Safety. 3 credits. Prerequisite: Engineering Classification.

Section 1 7:00 Daily ENG 343
Section 2 9:20 Daily ENG 343

Contracts, contracting procedures; specification analysis; ethics and professional responsibility; industrial safety and legal responsibility of employer and employee.

IG. 472.—Human Engineering. 2 credits. Prerequisite: Engineering Classification.

Section 1 7:00 M T W Th ENG 324
Section 2 10:30 M T W Th ENG 343

Human nature in design and production problems. The human element in the design of equipment and processes; human reactions to plant situations.

IG. 699.—Research and Master's Thesis. 0 to 6 credits.*

To arrange.

INTER-AMERICAN AREA STUDIES

Before a student may begin work toward the M. A. degree he must have had an accredited undergraduate degree with a major in an Inter-American Area Studies field in the liberal arts. Before beginning work toward the doctorate, the student must have the equivalent of a master's degree with an Inter-American Area Studies major in the liberal arts. The rules of the Graduate School apply to all graduate students in the Inter-American Area Study Program.

IA. 699.—Research and Master's Thesis. 1-6 credits.*

To arrange.

IA. 799.—Research and Doctoral Dissertation. 1-6 credits.*

To arrange.

JOURNALISM

JM. 413.—Magazine and Feature Writing. 3 credits. Prerequisite: JM. 301 or permission of instructor.

11:40 Daily STA 336

Preparation of special articles for publication in newspapers and magazines coordinated with study of magazine-editing problems. Supervised marketing of articles produced in the course. Required for most Journalism majors and also recommended for students outside the School who plan to write for professional and trade publications or those who desire training in the magazine writing field.

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*Credit assigned must be shown on course assignment card.

JM. 430.—Individual Problems in Journalism. 3 hours. Prerequisite: At least 15 hours of Journalism in the Upper Division and approval of the Director.
To arrange.

Designed for seniors in their graduating semester. Students and the instructor concerned will choose a problem or project which will give the student actual experience in his major field.

JM. 509.—Law of Press and Radio-TV. 3 credits. Prerequisite: COM. 201 or permission of instructor.
8:10 Daily STA 336

Understanding the law which guarantees and protects the privileges and defines the responsibilities of the mass media. Includes problems of constitutional law, libel, privacy, and governmental regulations pertaining to mass communication, with special attention to provisions of Florida law relating to journalism and broadcasting.

JM. 515.—Journalism in Secondary Schools. 3 credits. Prerequisite: Senior standing or permission of the instructor.
Section 1 11:40 Daily STA 326 WEBB, J. V.

This course is designed for persons who plan to teach Journalism in secondary schools, or who act as faculty advisors for school newspapers, magazines, or yearbooks. Kit includes a general survey of the editorial, business, publishing, and mechanical phases of school publications with emphasis on those aspects which are of particular value to teachers.

LATIN

LN. 599.—Special Study in Latin. 3 credits. Prerequisite: LN. 307-308, or the equivalent.
To arrange. AND 3-B BRUNET, J.

LN. 630.—Individual Work. 3 credits.
To arrange. AND 3-B BRUNET, J.

LAW

NOTE: The schedule of the College of Law differs in time from that of the other divisions of the University.

LW. 522.—Civil Procedure. 4 credits.
10:40-11:50 Daily, 1:00-2:10 W LAW 201 FARRELL, J. R.

The judicial system and the function of procedure in that system for the adjudication of civil cases.

LW. 582.—Torts II. 3 credits.
8:00-9:10 Daily LAW 201 PROBERT, W.

Analysis of the judicial and legislative processes as they affect the "law of torts;" history, current developments, trends, and predictions of the future.

LW. 599.—Legal Ethics. 1 credit.
8:00-10:00 p.m. T To arrange MALONEY, F. E.

Responsibilities of the legal profession; Canons of Ethics of the Florida and American Bar Associations; organization of the bar; current problems and activities of the legal profession.

LW. 600.—Sales and Sales Financing. 3 credits.
10:40-11:50 Daily LAW 203 DELONY, D.

Sales law, with emphasis on the distribution of goods, and the means by which commercial transactions including inventory financing are secured, such as conditional sales, chattel mortgages, and assignments.

LW. 606.—United States and Florida Constitutional Law. 3 credits.
1:00-2:10 Daily LAW 104 POWERS, L. S.

Federal powers; the bill of rights, impairment of the obligations of contracts; eminent domain; amendments; problems of overlap in state and federal control; composition, role and operation of the Supreme Court.

LW. 621.—Appellate Practice. 2 credits.
9:20-10:30 Th F, 2:20-3:30 M LAW 104 CROSBY, H. B.

Methods of review in Florida Appellate courts, including review of trial courts and administrative bodies. Details of procedure as well as preparation of the record, assignments of error, briefing, oral argument.

LW 622.—Evidence. 4 credit.
10:40-11:50 Daily 2:20-3:30 T LAW 104 ENWALL, H. O.

Rules governing admission and exclusion of evidence; judicial notice; presumptions; demonstrative, circumstantial, illegal evidence; the hearsay and best evidence rules; the competency, examination, impeachment, and privilege of witnesses; burden of proof.

LW. 635.—Mortgages. 2 credits.
2:20-3:30 W Th F LAW 104 GLICKSBERG, M.

Real property mortgages; problems of creation; assignment; priorities; rights and duties of the parties; merger; foreclosures.

LW. 639.—Acquisition of Real Property. 3 credits.
8:00-9:10 Daily LAW 104 DAY, J. W.

The real estate contract, adverse possession, adverse user; recording acts; deeds and their execution; covenants for title, after-acquired titles; covenants running with the land; creation of easements and profits; licenses.

LW. 650.—Administrative Law. 2 credits.
9:20-10:30 Th F, 2:20-3:30 M LAW 203 OKUN, J.

Analysis of the administrative process, with emphasis on the opportunity to be heard, compulsory process to obtain information, elements of fair procedure, and the process of decision.

LW. 656.—Patents and Copyrights. 2 credits.
3:40-4:50 T W Th LAW 104 OKUN, J.

Patentability; patent proceedings; construction of letters patent; transfers, assignments, licenses and contracts; infringement. Rights in literary property; preserving and renewing copyright; transfers and infringement.

LW. 681.—Domestic Relations. 2 credits.
9:20-10:30 M T W LAW 104 GLICKSBERG, M.

Nature of contract to marry and of marriage; requisites for validity; annulment doctrines; divorce: causes, grounds, defenses, jurisdiction; economic and tort relations between spouses and parent and child.

LW. 682.—Conflict of Laws. 3 credits.
8:00-9:10 Daily LAW 203 MACDONALD, W. D.

Problems arising whenever at least one of the operative facts of the case is connected with a state other than the forum; jurisdiction of courts; enforcement of foreign judgments.

LW. 690.—Law Review. 1 credit.
To Arrange GLICKSBERG, M. and PROBERT, W.

Research, writing and editorial work in connection with the publication of University of Florida Law Review. Limited to students whose scholastic average meets the requirements for law review work.

LIBRARY SCIENCE

LY. 321.—School Library Administration. 3 credits.
9:20 Daily LIB 454

Study of effective organization and administration of the school library through which the librarian contributes to the development of the total school program.

LY. 402.—Basic Reference Materials. 3 credits.
Prerequisite: LY. 301.
10:30 Daily LIB 454 GRAY, CHARLES F.

A study of the basic types of reference materials—encyclopedias, dictionaries, yearbooks, periodical indexes, bibliographies—with practice in the use of these materials.

LY. 404.—Classification and Cataloging. 3 credits.
11:40 Daily LIB 454 GRAY, CHARLES F.

Classroom and laboratory practice in the basic procedures of acquisition, preparation and processing of materials for library service in relation to the school and other agencies which the library serves.

LY. 430.—Individual Work. 3 credits. Prerequisites: LY. 402 or LY. 404 and permission of the department head.
To arrange

By means of this course students may enroll for advanced work in reference and/or advanced study of procedures of acquisition, and processing of materials for library service.

MANAGEMENT AND BUSINESS LAW

MGT. 271.—Principles of Management. 3 credits.
9:20 Daily MAT 216 NIEMELA, R. W.

Basic fundamentals of management underlying solution of problems of organization and operation of business enterprise. Application of these fundamentals to specific fields of industrial management. Not open to students with 4BA classification.

MGT. 401.—Business Law. 3 credits.
8:10 Daily MAT 213 GAITANIS, L. A.

Introduction to study of business law. Contracts; negotiable instruments; sales.

MGT. 471.—Principles of Organization. 3 credits.
10:30 Daily MAT 216 NIEMELA, R. W.

Includes coordinative, scalar, functional and staff phases of government, military, church, and finally industry, whose internal and external problems are considered in their application to leadership.

MGT. 699.—Research and Master's Thesis. 0-6 credits.*
To Arrange.

MARKETING

MKG. 231.—Principles of Marketing. 3 credits. Prerequisite: ES. 201.
9:20 Daily MAT 108 BUTTERWORTH, J. D.

The institutions and methods developed for carrying on trade operations; retail and wholesale agencies; elements of marketing efficiency; the cost of marketing; price maintenance; unfair competition; the relation of the government to marketing. Not open to students with 4BA classification.

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*Credit assigned must be shown on course assignment card.

MKG. 233.—Salesmanship. 3 credits.
11:40 Daily MAT 108 SIMS, G. R.

An introduction to selling. Analysis of types, stages and problems of psychology of sale situations. Not open to students with 4BA classification.

MKG. 333.—Advertising. 3 credits.
10:30 Daily MAT 219 YODER, L. C.

A comprehensive guide to the planning and preparation of modern advertising in all of its phases.

MKG. 437.—Retailing. 3 credits Prerequisite: MKG. 231.
9:20 Daily MAT 219 SIMS, G. R.

The fundamentals of retailing; problems, policies, trends and procedures in retail distribution.

MKG. 459.—Field Work in Marketing. Variable credit.
To arrange

Up to three credit hours for weekly reports and a final report on problems as they arise in a full time three months period of work in Sales, Retailing, Advertising, Wholesaling, Credit and Collections, Market Research, or other work in Marketing under-supervision of an approved employer. Open only to students majoring in Marketing, Sales, Retailing, or Advertising curricula only before the last term on the campus, only after completion of a course in the principles of the subject to be practiced, and only with written permission from a sponsoring professor. Complete course regulations may be secured from sponsoring professor. All registrations in this course are subject to these regulations.

MKG. 531.—Marketing Principles and Institutions. 3 credits.
10:30 Daily MAT 108 BUTTERWORTH, J. D.

A descriptive and analytical approach to the study of marketing institutions and functions. Consideration of buying motives and habits; product policy; selection of channels of distribution; personal selling and advertising programs; pricing; and the relationship of government to marketing activities. Required of all candidates for the Master of Business Administration degree who have not had a basic marketing course.

GRADUATE COURSES

MKG. 630.—Individual Work. 3 credits. Prerequisite: Permission of Department.
To arrange

A reading and/or research course in the several areas of marketing as needed by graduate students. May be elected for full credit in subsequent semesters with change of content.

MKG. 699.—Research and Master's Thesis. O-6 credits.*
To arrange.

MATHEMATICS

MS. 105.—Basic Mathematics. 4 credits. Prerequisite: C-42, except for the superior group in mathematics.
(Register for one section only.)
Section 1 7:00 Daily and 2:00 M W WAL 308
Section 2 8:10 Daily and 2:00 T Th PEA 4
Section 3 9:20 Daily and 2:00 M W PEA 4

A sequence of topics in college algebra, trigonometry, analytic geometry and some calculus. An attempt is made to present the material as an integrated whole, rather than as a series of separate topics.

MS. 106.—Basic Mathematics. 4 credits. The second half of the course MS. 105-106.
(Register for one section only.)

*Credit assigned must be shown on course assignment card.

Section 1 7:00 Daily and 2:00 M W WAL 202
Section 2 8:10 Daily and 2:00 T Th WAL 308
Section 3 9:20 Daily and 2:00 T Th WAL 209

MS. 300.—Mathematics for Elementary Teachers. 3 credits. Prerequisite: C-42 or some elementary taching experience.
8:10 Daily WAL 211

For teachers and prospective teachers of mathematics in grades through 6. Not open to students who have completed more than two semesters of college mathematics.

MS. 310.—Statistical Methods. 3 credits. Prerequisite: MS. 325 or equivalent.
10:30 Daily WAL 209

Presents the bases of various statistical procedures as well as computational methods. Frequency distributions; moments; normal curve; regression and correlation analysis. Introduction to Chi-square, Student's t and the F distributions.

MS. 325.— Advanced General Mathematics. 3 credits. Prerequisite: C-42.
(Register for one section only.)
Section 1 7:00 Daily WAL 207
Section 2 8:10 Daily WAL 202
Section 3 9:20 Daily WAL 307

Continuation of elementary general mathematics using a cultural and functional presentation of algebra, geometry, statistics and calculus.

MS. 326.—Advanced General Mathematics. 2 credits. Prerequisite: C-42.
12:50 M W F WAL 207

Applications of geometric theorems and the manner in which geometry, algebra, trigonometry and analytic geometry are related. Proofs; constructions; inequalities; the locus idea. Valuable to prospective teachers and to other students majoring in mathematics.

MS. 327.—Advanced General Mathematics. 3 credits. Prerequisite: MS. 325.
11:40 Daily WAL 102

The general processes pursued in MS. 325 with additional algebra, trigonometry and analytic geometry. The sequence C-42, MS 325, and MS. 327 constitutes a cultural approach to formal courses in the calculus.

MS. 350.—Mathematics for Junior High School Teachers.** 3 credits.
8:10 Daily PEA 10

For in-service teachers of mathematics in grades 7 through 9, and for those who wish either to expand their background or secure new materials for better teaching.

MS. 353.—Differential Calculus. 4 credits. Prerequisite: MS. 106 or 327.
(Register for one section only.)
Section 1 8:10 Daily and 2:00 M W WAL 307
Section 2 9:20 Daily and 2:00 T Th WAL 211
Section 3 10:30 Daily and 2:00 T Th WAL 202

Differentiation and integration with applications to rates of change, computation of areas, volumes, moments of inertia, work done, and many others. Various advanced topics of special value to engineers and scientists. Open to University College students.

MS. 354.—Integral Calculus. 4 credits. The second half of the course MS. 353-354. Prerequisite: MS. 353 or its equivalent.
(Register for one section only.)
Section 1 8:10 Daily and 2:00 M W WAL 209
Section 2 9:20 Daily and 2:00 T Th WAL 301
Section 3 10:30 Daily and 2:00 M W WAL 211

**Students who register for MS. 350 must also register for EDS. 550; students who register for MS. 400 must also reister for EDS. 650.

MS. 400.—Mathematics for Senior High School Teachers.** 3 credits. Prerequisite: One full year of college mathematics and experience in teaching mathematics at the secondary level.
8:10 Daily PEA 11

For in-service teachers of senior high school mathematics who desire either to review standard materials or to obtain enrichment background.

MS. 405.—Theory of Equations. 3 credits. Prerequisite: MS. 106 or 327.
10:30 Daily WAL 213

Equations of higher degree, various methods of approximating solutions of numerical equations, determinants, systems of linear equations, symmetric functions, elimination, resultants, and discriminants.

MS. 411.—Survey of Modern Algabra. 3 credits. Prerequisite: MS. 106 or 327.
11:40 Daily WAL 207

An introduction to the simpler concepts of higher algebra. Number system, number theory, groups, rings, ideals, integral domains, fields and matrices.

MS. 420.—Differential Equations. 3 credits. Prerequisite: MS. 354.
7:00 Daily WAL 307

Classification, solution and applications of various equations which contain expressions involving not only variables, but also the derivatives of these variables. Not open for credit to students who have taken MS. 521.

MS. 430.—Individual Work. 3 credits. Prerequisite: MS. 354 and permission of Head of Department.
To arrange

For undergraduate work needed by the student and not obtainable in the regular course offerings.

MS. 431.—College Geometry. 3 credits. Prerequisite: MS. 326 or its equivalent.
12:50 Daily WAL 209

Use of elementary methods in the advanced study of the triangle and circle. Emphasis on solving original exercises. Valuable to prospective high school and college geometry teachers.

COURSE FOR ADVANCED UNDERGRADUATES AND GRADUATES

MS. 501.—Introduction to Mathematical Thought. 3 credits.
7:00 Daily WAL 211

The structure of mathematics. Axiomatic methods. Sets. Transfinite arithmetic. Linear continuum; the real number system. Groups. Generalizations of classical mathematics. Mathematical philosophies.

MS. 510.—Mathematical Statistics. 3 credits. Prerequisite: MS. 354.
10:30 Daily WAL 301

The binomial distribution, DeMoivre-Laplace theorem, distribution functions, and moment-generating functions; frequency distribution of two variables; development and some applications of the Chi-square, Student's t and F distributions.

MS. 521.—Higher Mathematics for Engineers and Physicists. 3 credits. Prerequisite: MS. 354. The first third of the course MS. 521-522-523. Not open for credit to students who have taken MS. 420.
7:00 Daily WAL 301

Ordinary differential equations with emphasis on numerical methods and series solutions; the Laplace transform; boundary value problems; orthogonal functions, vector analysis, partial differential equations, functions of a complex variable.

MS. 522.—Higher Mathematics for Engineers and Physicists. 3 credits. Prerequisite: MS. 521 or MS. 420. The middle third of MS. 521-522-523.
9:20 Daily WAL 202

MS. 523.—Higher Mathematics for Engineers and Physicists. 3 credits. Prerequisite: MS. 420, or 423, or 521. The last third of MS. 521-522-523.
7:00 Daily WAL 209

MS. 551.—Advanced Topics in Calculus. 3 credits.
9:20 Daily WAL 207

Topics of advanced nature selected from the calculus, including partial differentiation, Taylor's theorem, infinite series, continuation of simple multiple integrals, line and surface integrals, and Green's theorem.

MS. 561.—Introduction to Topology. 3 credits. Prerequisite: MS. 354.
12:50 Daily WAL 301

Set theory; the real line, topological spaces, topological notions; Heine-Borel Theorem; mappings, continuous and homeomorphisms; Hausdorff spaces; metric spaces; the Euclidean spaces.

GRADUATE COURSES

MS. 602.—Vector Analysis. 3 credits.
10:30 Daily WAL 102

The algebra and calculus of vectors in two and three dimensions. Applications to problems in physics and engineering.

MS. 613.—Theory of Groups of Finite Order. 3 credits.
7:00 Daily PEA 4

Introduction to the group concept; a treatment of pure group-theory with numerous examples and a few of the simpler applications.

MS. 624.—Synthetic Projective Geometry. 3 credits.
8:10 Daily WAL 207

Pure geometry dealing with invariance, poles and polars, ruled surfaces and the theory of involution.

MS. 630.—Individual Work. 3 credits.
To arrange

Under this number special work may be taken by graduate students.

MS. 636.—Foundations of Geometry. 3 credits.
11:40 Daily WAL 308

A study of the assumptions of geometry with particular attention to the parallel postulate; elements of non-Euclidean geometry, trigonometry and calculus.

MS. 639.—Partial Differential Equations. 3 credits.
12:50 Daily WAL 213

Origin and solutions of partial differential equations by various methods including Lagrange linear equations; Charpit and Jacobi's methods of solving non-linear first order equations.

MS. 668.—History of Elementary Mathematics. 3 credits.
10:30 Daily WAL 207

A survey of the development of mathematics through the calculus, with special emphasis on the changes of the processes of operation and methods of teaching.

MS. 690.—Special Topics. 3 credits.
Section 4 To Arrange

Includes course work in topics not in sufficient demand to justify listing under separate numbering.
Students desiring such work should discuss their needs with the Department as early as possible so that classes can be arranged as may seem desirable.

MS. 699.—Research and Master's Thesis. 0 to 6 credits.*
To Arrange

MS. 799.—Research and Doctoral Dissertation. 1 to 12 credits.*
To Arrange

MECHANICAL ENGINEERING

ML. 381.—Elementary Heat Power. 3 credits. Prerequisites: ML. 354, PS. 206.
8:10 Daily ENG. 320

The fundamentals of steam power plants, internal combustion engines, and compressed air machinery.

ML. 384.—Metallography and Heat Treatment. 3 credits. Prerequisite: CG. 361.
8:10 M T Th F ENG 345
Laboratory: 12:50 to 4:10 M W ENG 550

The crystal structure of ferrous and non-ferrous metals and their alloys; the iron-carbide diagram, heat treatment, and use of steel and cast iron.

ML. 385.—Thermodynamics I. 3 credits. Prerequisites: MS. 354, PS. 206, CY. 218.
10:30 Daily ENG 418

Energy equations and availability of energy; gases, vapors, and mixtures; engineering applications in flow of fluids, vapor power cycles.

ML. 387.—Mechanical Laboratory I. 1 credit. Corequisite: ML. 385.
12:50 to 5:30 M W WAL 103

The preparation of engineering reports, computation aids, the measurement of area, time, speed, pressure, temperature and gas flow.

ML. 489.—Manufacturing Operations I. 3 credits. Prerequisite: EM. 366. Corequisite: EM. 367.
(Register for the Lecture Section and One Laboratory Section)
Lecture Section 1: 10:30 M T W Th ENG 512
Laboratory Sections:
Section 11 12:50 to 4:10 T Th F 103
Section 12 12:50 to 4:10 M W F 103

Machinery, materials and processes used in manufacturing.

GRADUATE COURSES

ML. 683.—Mechanical Research I. Variable credit. Prerequisite: ML. 483-484.
To arrange

Research projects in Mechanical Engineering.

*Credit assigned must be shown on course assignment card.

ML. 689.—Advanced Mechanical Laboratory I. 3 credits. Prerequisite: ML. 483-484.
To arrange

Experimental projects in Mechanical Engineering.

ML. 699.—Research and Master's Theses. 0 to 6 credits.*

MEDICAL SCIENCES

MED. 605.—Research Methods in Anatomy. 1 to 3 credits per semester. Prerequisite: MED. 501, MED. 503.

The student acquires proficiency in one or more of the research techniques used in histochemistry, radiation biology, experimental embryology, teratology, experimental neurology or electron microscopy under direct supervision of an experienced staff member.

MED. 615.—Research Methods In Biochemistry. 12 laboratory hours. 2 to 4 credits per semester. Prerequisite: MED. 511 or by special arrangement.

An introduction to biochemical research in which the student acquires proficiency in one or more of the research techniques used in physical biochemistry, intermediary metabolism, radioisotopes, etc., under the direct supervision of one or more staff members.

MED. 617.—Special Topics in Biochemistry. 1 hour. 1 credit per semester (may be repeated) Prerequisite or corequisite: MED. 612, 613, or 614, or equivalent. Supervised study in journals, treatises and monographs in various subject areas of biochemistry with informal weekly conferences and reports.

MED. 627.—Research Methods in Physiology. 1 to 4 credits.

The special needs of each individual student will be met by conferences and laboratory work.

MED. 630.—Research in Medical Sciences: Anatomy, Biochemistry, Microbiology, Pathology, Pharmacology, Physiology. 1 to 6 credits.

Graduate students can obtain credit toward a degree for project research in any department listed. This work will supplement thesis research in the major department.

MED. 699.—Research and Master's Thesis. 0 to 6 credits.* Anatomy, Biochemistry, Microbiology, Physiology.

MED. 799.—Research and Doctoral Dissertation. 1 to 6 credits.* Anatomy, Biochemistry, Microbiology, Physiology.

MUSIC

****MSC. 21.—Beginning Piano.** 1 credit.
DANBURG, R. L.

****MSC. 25.—Beginning Voice.** 1 credit.
KEISTER, E. J.

****MSC. 27.—Beginning Strings.** 1 credit.
WIRTALA, A. E.

****MSC. 35. Beginning Woodwind.** 1 credit.
WIRTALA, A. E.

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*Credit assigned must be shown on course assignment card.

**MSC. 43.—Beginning Brass. 1 credit.
BOWLES, R. W.

**MSC. 51.—Beginning Percussion. 1 credit.
HALE, J. P.

All Applied Music Courses, except Organ as outlined in the University of Florida General Catalogue will be offered during the Summer Session of 1960.

MSC. 160.—Music Skills. 3 credits.
8:10 Daily R 201 HALE, J. P.

Fundamentals of music needed by the classroom teacher for teaching music in the elementary school.

MSC. 161.—Music for the Elementary Child. 3 credits. Prerequisite: MSC. 160 or equivalent.
11:40 Daily R 201 HALE, J. P.

MSC. 161 is a state certification requirement for teaching in the elementary schools.
Principles, problems, and procedures relative to the teaching of music by the classroom teacher in the elementary school.

MSC. 170.—University Orchestra. 1 credit.
7:30 p.m. M, 4:20 Th R 144 WIRTALA, A. E.

Study and performance of standard orchestry literature.

MSC. 171.—Choral Union. 1 credit.
3:10 Daily R 122 KEISTER, E. J.

Study and performance of large choral works. A mixed chorus.

MSC. 174.—University Band. 1 credit.
4:20 M T W F R 144 BOWLES, R. W.

Performance of standard band literature.

MSC. 210.—Music Appreciation. 2 credits.
2:00 M T Th F R 202 DANBURG, R. L.

A study, through group listening and discussion, to expand the student's understanding of music literature.

MSC. 361.—Choral Material. 3 credits.
8:10 Daily R 202 PAUL, O. F.

MSC. 363.—Projects and Problems in Music. 3 credits.
To arrange R 106 BACHMAN, H. B.

For the advanced student who wishes some help in the problems of teaching music in an individual suitation.

MSC. 364.—Projects and Problems in Music. 3 credits. The second half of course MSC. 363-364.
To arrange R 106 BACHMAN, H. B.

MSC. 368.—Music Education in the Junior High School. 3 credits. Prerequisite: MSC. 102. Fundamental principles and procedures of music education in the senior high school.
10:30 Daily R 201 PAUL, O. F.

**Students registered for Applied Music will be assigned instructor, time and place of meeting at the registration desk.

MSC. 460.—Band Materials Laboratory. 3 credits.
9:20 Daily R 202 BOWLES, R. W.

Study and performance of the repertoire used in school bands.

MSC. 461.—School Music. 3 credits. Prerequisite: Permission of instructor. Fundamental principles and problems of organization and administration of city, county and state school music systems.
12:50 Daily R 202

NUCLEAR ENGINEERING

NR. 601.—Nuclear Engineering Laboratory. 3 credits. Prerequisite: NR 600
To Arrange

Continuation of NR. 600. Laboratory practice in use of equipment and determination of the basic parameters of neutron behavior.

NR. 622.—Special Topics in Nuclear Engineering. 1-6 credits.
To Arrange

Laboratory, lectures or conferences covering specially selected topics in nuclear engineering.

NR. 699.—Research and Master's Thesis. 0-6 credits.*
To Arrange

ORNAMENTAL HORTICULTURE

GRADUATE COURSES

OH 670.—Non-thesis Research in Ornamental Horticulture. 1-6 credits.
To arrange 116 MCC JOINER, J. N.

OH. 699.—Research and Master's Thesis. 0-6 credits.*
To arrange 115 MCC JOINER, J. N.

PHARMACEUTICAL CHEMISTRY

GRADUATE COURSES

PCY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange

PCY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange

PHARMACOGNOSY

PGY. 222.—Practical Pharmacognosy. 3 credits.
8:10 Daily LEI 432 GRAMLING, L. G.

GRADUATE COURSES

PGY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange

PGY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange

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*Credit assigned must be shown on course assignment card.

PHARMACOLOGY

PLY. 301.—Applied Human Anatomy for Pharmacists. 4 credits.
10:30 M T Th F LEI 432 VOSS, E.
Lab. 2:00-5:20 M T W Th LEI 314

PLY. 405.—Introductory Pharmacology. 3 credits.
12:50 Daily LEI 324 FOX, L. E.

GRADUATE COURSES

PLY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange

PLY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange

PHARMACY

PHY. 106.—Pharmaceutical Calculations. 2 credits
10:30 M T Th F LEI 324 HAMPTON, R. J.

PHY. 224.—Galenical Pharmacy. 3 credits.
9:20 M T Th F LEI 324 HAMPTON, R. J.
Lab. 9:20-12:40 W and 12:50-4:10 F LEI 306

PHY. 456.—Pharmaceutical Specialties. 3 credits.
11:40 M T Th F LEI 324 LAUTER, W. M.
Lab. 9:20-11:30 W and 2:00-4:10 F LEI 314

PHY. 462.—Prescriptions and Dispensing. 4 credits.
8:10 M T Th F LEI 324 BECKER, C. H.
Lab. 9:20-11:30 M T Th F LEI 306

GRADUATE COURSES

PHY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange

PHY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange

PHILOSOPHY

PPY. 201.—Problems of Philosophy. 3 credits.
9:20 Daily AND 104 BARTLETT, G. R.

A consideration of some of the major problems of philosophy—ethics, philosophy of science, theory of knowledge, philosophy of religion and metaphysics. Selections from the writings of important philosophers, ancient and modern, with emphasis upon the modern, will be read.

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*Credit assigned must be shown on course assignment card.

PPY. 430.—Individual Work. 3 credits. Prerequisite: 12 hours of philosophy, and permission of the departmental adviser.
To arrange BARTLETT, G. R.

Provision will be made for advanced undergraduate students who desire to supplement the regular courses by individual reading or investigation under guidance, Students will be helped to plan a definite program, and will meet a member or members of the departmental staff in frequent conferences. With change of content, PPY. 430 may be elected for full credit in subsequent sessions.

PPY. 630.—Individual Work. 3 credits. Prerequisite: Approval of the departmental adviser.
To arrange BARTLETT, G. R.

Provision will be made for graduate students who desire to supplement the regular courses by individual reading or investigation under guidance. Students will be helped to plan a definite program, and will meet a member or members of the departmental staff in frequent conferences. With change of content, PPY 630 may be elected for full credit in subsequent sessions.

PPY. 699.—Research and Master's Thesis. 0 to 6 credits.*

PHYSICAL EDUCATION, HEALTH AND ATHLETICS

PHA. 251.—Square and Social Dance. 2 credits.
12:50 Daily FLG 222 WAGLOW, I. F.

Basic skills in square and social dancing.

PHA. 282.—Basketball. 2 credits.
9:20 Daily FLG 224 CHERRY, H. S.

Skills, rules, coaching methods, offensive and defensive team play in basketball.

PHA. 285.—Individual and Dual Sports for Men. 2 credits.
2:00 Daily FLG 208 MCCACHREN, J. R.

Skills, rules, strategies and teaching methods in tennis, handball, golf, and other individual and dual activities.

PHA. 286.—Aquatics. 2 credits.
8:10 Daily FLG 222 MCCACHREN, J. R.

Skills, knowledges and teaching methods in swimming and diving.

PHA. 324.—Social Recreation. 3 credits.
9:40 Daily FLG. 222 LEILICH, R. E.

Methods, materials, and techniques of conducting social recreation programs.

PHA. 361.—Elementary School Health Program. 3 credits.
(Register for one section only.)
Section 1 9:20 Daily FLG 208 HICKS, D. A.
Section 2 10:30 Daily FLG 208 HICKS, D. A.
Section 3 11:40 Daily FLG 222 SALT, E. B.

Principles of developing the health program with procedures for protecting and improving the health of the elementary school child through: home-school-community resources and cooperation; health screening and follow-up; use of school plant health services; selection and use of health instructional materials, records and reports in providing health experiences at various levels of the elementary school; integration and evaluation of health instruction.

*Credit assigned must be shown on course assignment card.

PHA. 369.—School Safety Education. 2 credits.
10:30 M T W Th FLG 18 NUETZEL, W. A.

General safety content as applied in elementary and secondary school programs. Methods and materials for teaching safety, and the organization of safety education programs.

PHA. 373.—Teaching Physical Education in the Elementary School. 3 credits.
(Register for one section only.)

Section 1	8:10 Daily	FLG 224	STEVENS, B. K.
Section 2	9:20 Daily	FLG 206	PYE, R. L.
Section 3	10:30 Daily	FLG 206	PYE, R. L.

The program of physical education activities for the elementary school including small group play, large group play, directed play, rhythmic activities and team games, together with methods and procedures for conducting such a program.

PHA. 376.—First Aid and Injuries. 2 credits.
Prerequisite: Limited to Upper Division students.
11:40 M T W Th FLG 224 LEILICH, R. L.

Standards and accepted principles of first aid. Dressings and bandages, wounds and their care, artificial respiration, poisons, fractures and dislocations, burns, transportation of the injured, and other common emergencies.

PHA. 421.—Driver Education and Traffic Safety. 3 credits. Prerequisite: Limited to Upper Division students who hold a valid driver's license.
8:10 Daily FLG 18 NUETZEL, W. A.

Prepares teachers to conduct driver education and training courses on the secondary school level. Methods and materials concerned with the psychological limitations of drivers, driving practices, automobile construction, manipulation and maintenance, pedestrian protection, road training, and skill tests.

GRADUATE COURSES

PHA. 601.—Interpretations of Physical Education. 3 credits.
9:20 Daily FLG 309 SALT, E. B.

The broad philosophical bases upon which the modern program of physical education is predicated. Biological, psychological, sociological and educational implications in interpreting and delineating the function of physical education in contemporary democratic society.

PHA. 605—Research Methods in Physical Education, Health Education and Recreation 3 credits.
10:30 Daily FLG 309 WAGLOW, I. F.

Elements and techniques of research and their application to problems in the fields of physical education, health education, and recreation. The identification of various research methods, familiarization with outsanding and significant research reports, evaluation of published research.

PHA. 606.—Individual Work. 3 credits. Prerequisite: PHA. 605.
To arrange WGY 2 LEAVITT, N. A.

For students who wish to pursue individual research projects under faculty guidance. Permission to register is dependent upon approval of a written statement of the proposed project by the project advisor and approval by the Dean.

PHA. 616.—The Physical Education Curriculum 3 credits
8:10 Daily FLG 309 LEAVITT, N. A.

Principles of developing an integrated physical education curriculum in grades 1-12. Included are the organization for and methods of conducting curriculum studies. Practical experience is given in developing curriculum guides or courses of study.

PHA. 620.—Problems in the Administration of Athletics. 3 credits.
11:40 Daily FLG 309 CHERRY, H. S.

Problems of administering the interscholastic athletic program. The place of athletics in education; various methods of oranizing the programs; establishment of policies relating to staff, budget, equipment, facilities, program, awards, public relations, membership in conferences, and legal liability. The intramural athletic program.

PHYSICS

PS. 201.—General Physics. 3 credits. The first half of the course PS. 201-202. Prerequisite: MS. 105 or MS. 325.
(Register for the Lecture-Discussion Section, and for PS. 207.)
9:20 Daily PHY 133

General Physics for students who are not majoring in the physical sciences.

PS. 202.—General Physics. 3 credits. The second half of the course PS. 201-202.
(Register for the Lecture-Discussion Section and for PS. 208.)
11:40 Daily PHY 133

PS. 205.—General Physics. 3 credits. The first part of the course PS. 205-206-303. Prerequisites: MS. 105-106. Corequisite: MS. 353.
(Register for the Lecture-Discussion Section and for PS. 207.)
10:30 Daily PHY 133

Theory of mechanics and heat. For physics majors and engineering students.

PS. 206.—General Physics. 3 credits. The second part of the course PS. 205-206-303. Corequisite: MS. 354.
(Register for the Lecture-Discussion Section and for PS. 208.)
8:10 Daily PHY. 133

Theory of electricity and magnetism, wave motion and sound.

PS. 207.—Laboratory for PS. 201 and PS. 205. 1 credit.
(Register for one section only.)
Section 111 12:50-3:50 M W PHY 324
Section 112 12:50-3:50 M W PHY 326
Section 113 12:50-3:50 T Th PHY 324
Section 114 12:50-3:50 T Th PHY 326

PS. 208.—Laboratory for PS. 202 and PS. 206. 1 credit.
(Register for one section only.)
Section 111 12:50-3:50 M W PHY 325
Section 112 12:50-3:50 M W PHY 327
Section 113 12:50-3:50 T Th PHY 325
Section 114 12:50-3:50 T Th PHY 327

PS. 303.—General and Modern Physics. 3 credits. The third part of the course PS. 205-206-303.
(Register for the Lecture-Discussion Section only.)
12:50 Daily PHY 133

Theory of optics and introductory atomic and nuclear physics.

PS. 320.—Modern Physics. 3 credits. Prerequisites: PS. 201-202 or equivalent. Corequisite: calculus
10:30 Daily PHY 230

The atomic and electrical nature of matter, elementary particles, the nucleus, Bohr theory, absorption and emission of X-rays, atomic spectra, radioactivity.

GRADUATE COURSES

PS. 630.—Individual Work. Variable credit.*
To arrange.

Experiments on particular topics of physics, a review of classical experiments, or the development of an assigned experimental problem. The work will be assigned to meet the needs and interests of the particular student.

PS. 699.—Research and Master's Thesis. 0 to 6 credits.*

PS. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*

PLANT PATHOLOGY

Prerequisite to any course in Plant Pathology is Botany 180. PT. 321 is prerequisite to courses in Plant Pathology.

PT. 321.—Plant Pathology. 3 credits.
2:00 M W ROL 501 ROBERTS, D. A.
Laboratory: 3:10 to 5:20 M W and 2:00 to 4:10 T Th ROL 501.

Plant diseases caused by mechanical injury, environmental factors, faulty nutrition, viruses, nematodes, parasitic bacteria, fungi, other plants and their control; their economic importance; life cycles and seasonal development of parasitic fungi and bacteria, and the phenomenon of parasitism.

PT. 425.—Diseases of Ornamental Plants. 3 credits.
To arrange ROL 501 WEBER, G. F.

Diagnosis and control of the prevalent diseases of annuals, bulbs, and perennial herbacevus and shrubby ornamental plants in Florida.

GRADUATE COURSES

Prerequisites: (1) PT. 321 or equivalent. (2) Thirty semester hours in biological sciences, 15 of which should be in botany.

PT. 605.—History of Plant Pathology. 1 credit.
To arrange MCC 117 MULLER, A. S.

A correlation of recorded historical events and the trends and development of plant pathology as an exploration of our current knowledge of plant diseases.

PT. 606.—Plant Pathology Literature. 1 credit.
To arrange MCC 117 MULLER, A. S.

The knowledge of existing and available source material, current technical publications dealing with plant diseases and their evaluation as aids in conducting research.

PT. 607.—Plant Disease Collection. 2 credits. Prerequisite: PT. 434.
To arrange MCC 117 MULLER, A. S.

The collection, identification and preservation of plant diseases and fungi, stressing those of economic importance in Florida and those possessing distinctive taxonomic characteristics.

PT. 623.—Advanced Plant Pathology. 3 or 6 credits.*
To arrange ROL 501 WEBER, G. F.

A study of life histories of parasitic organisms in relation to the host plant, environmental factors influencing the development of diseases; all diseases of certain crop plants and specific discases common to a wide variety of hosts.

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*Credit assigned must be shown on course assignment card.

PT. 699.—Research and Master's Thesis. 0 to 6 credits.*
ROL 408 WEBER, G. F., and ROBERTS, D. A.

For students working for the Master's degree. May be repeated for full credit but credits cannot be used to reduce the total required for the degree.

PT. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
ROL 408 WEBER, G. F., and ROBERTS, D. A.

For students studying for a Doctor's degree. May be repeated for full credit but credits cannot be used to reduce the total required for the degree.

POLITICAL SCIENCE

PCL. 201.—American Federal Government. 3 credits.
8:10 Daily PEA 202 DOWNING, R. G.

Basic principles of the Federal Constitution. Civil rights. Political parties and the electoral process. The structure and machinery of the federal government, including the Congress, President, and Judiciary.

PCL. 202.—American State and Local Government. 3 credits.
9:20 Daily PEA 202 BAILEY, T. W.

State constitutions, political parties, and politics. State legislatures, courts and chief executives. The functions of state governments. City and county government.

PCL. 203.—American Government: Policy and Functions. 3 credits. Prerequisite: PCL. 201.
11:40 Daily PEA 201 DOWNING, R. G.

The determination of public policy. Influence of political parties, pressure groups, legislatures, executives, and courts in determining public policy. The functions of government.

PCL. 209.—International Relations. 3 credits. Prerequisite: C-1 or equivalent.
10:30 Daily PEA 201 HARTMANN, F. H.

The nature of international relations; nationalism, imperialism, militarism, armaments; history of international relations; foreign policies; functions and problems of democracy; international organization; the United Nations.

PCL. 307.—Comparative Government. 3 credits. Prerequisite: 6 hours of Political Science.
9:20 Daily PEA 201 DIAMANT, A.

The government and politics of Great Britain in the Commonwealth of Nations. Special emphasis on historical, cultural, social, and economic determinants of current institutions and policies. Constitutions, parties, legislatures, executives, civil service systems, law and local government.

PCL. 400.—Political Science for Teachers. 3 credits.
11:40 Daily PEA 202 YEARWOOD, R. M.

Special course for graduate students in College of Education. Designed for teachers who are in need of: (1) special topics; or (2) certain areas not covered in their general undergraduate work in the social sciences; or (3) needing additional work in certain fields. May be taken more than once when content is different.

PCL. 509.—American Foreign Policy. 3 credits. Prerequisite: PCL. 209-210 or HY. 245-246.
10:30 Daily PEA 202 SVARLIEN, O.

The United States in world affairs. Analysis of American foreign policy, past and present, in order to bring out the basic policies and the forces behind these policies.

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*Credit assigned must be shown on course assignment card.

PCL. 530.—Individual Work. 3 credits.
Time and place to be arranged. STAFF.

Readings and discussions in advanced topics in political science. Open only to students majoring in political science who need background work in certain areas of political science. Registration only with permission of departmental graduate advisor or department head. May be elected for full credit in subsequent sessions with change of content.

GRADUATE COURSES

PCL. 627.—Seminar in International Relations and Organization. 3 credits.
1:30-4:30 Monday LIB 420 HARTMANN, F. H.

An analytical study of the basic forces of international politics; a critique of the theories of imperialism, geopolitics, nationalism, and the balance of power; the problems of total war, national power, and world opinion; the foreign policies of the great powers.

PCL. 630.—Individual Work. 3 credits.
Time and place to be arranged. DIAMANT, A. and KAMMERER, G. M.

A reading or research course in such areas of Political Science as are needed by the graduate students. May be elected for full credit in subsequent sessions with change of content.

PCL. 699.—Research and Master's Thesis. 0 to 6 credits.*
DAUER, M. J.

PCL. 799.—Research and Doctoral Dissertation. 1 to 12 credits.*

POULTRY HUSBANDRY

PY. 429.—Problems in Poultry Production. 1 to 4 credits.* Maximum 8 credits. Prerequisite: Permission of instructor.

Qualified students may choose a topic or problem for study. Problems that may be selected are housing and equipment, feeding, breeding, physiology, marketing, and management. Type and scope of work determine credits allowed.

GRADUATE COURSE

PY. 614.—Advanced Poultry Nutrition. 1 to 4 credits.* Prerequisite: AL. 312 and PY. 414.

Metabolism of essential nutrients, and role of enzymes and hormones in poultry nutrition.

PSYCHOLOGY

PSY. 201.—General Psychology. 3 credits.
8:10 Daily BEN 108 ANDERSON, R. J.

The general topics in the field of psychology. Designed to provide an understanding of human behavior, approached as a natural phenomenon subject to scientific study. The unifying concept is the adaptation of the individual to his physical and social environment.

PSY. 202.—Personality Development. 3 credits.
9:20 Daily FLO 108 HINCKLEY, E.D.

The mechanisms of personality formation, with special emphasis upon the varieties of human adjustment. The more inevitable problems of human life with their normal and abnormal solutions. The origin and modification of behavior. Processes of motivation and adjustment. Development of personality traits. Techniques of mental hygiene.

*Credit assigned must be shown on course assignment card.

PSY. 312.—Psychology of Exceptional Children. 3 credits.
11:40 Daily BEN 104 RETHLINGSHAFER, D.

Individual differences, intelligence, feeble-mindedness, dull and backward children, superior and gifted children, speech and motor defects, sensory and neurological disorders, conduct problems, social and emotional maladjustments, and other topics concerning exceptional and mentally peculiar children.

PSY. 410.—Abnormal Psychology. 3 credits.
10:30 Daily BEN 104

The principal abnormal phases of behavior, and the ways by which the individual develops abnormal habits of thinking and acting. A survey of the signs of beginning maladjustment and procedures which may be followed to correct these tendencies. Special attention is given to the prevention and treatment of mental disease.

PSY. 509.—Theories of Personality. 3 credits.
8:10 Daily BEN 104 ROBERTSON, M. H.

Basic concepts and findings, techniques of investigation, and survey of contemporary theories of personality.

PSY. 601.—Seminar: Literature in Experimental Psychology. 3 credits.
10:30 Daily BEN 106 HORNE, E. P.

A consideration of experimental literature in selected areas of psychology.

PSY. 630.—Individual Work. 3 credits.
To arrange

A reading or research course in such areas of Psychology as are needed by graduate students. May be elected for full credit in subsequent sessions with change of content.

PSY. 651.—Practicum in Professional Psychology. 4 credits.
To arrange DIXON, J. C. and ROBERTSON, M. H.

Supervised training in appropriate work settings relating theoretical understanding of personality to case handling and consultation through a variety of psychological assessment and treatment procedures. Designed as a sequence of 4 semesters parallelling academic course work. Each succeeding registration requires increasing levels of competence and responsibility. Sixteen credits, or equivalent demonstrated competence, are recommended for admission to internship, PSY. 755. Maximum of 16 credits allowed.

PSY. 669.—Seminar: Motivation. 3 credits.
7:00 to 9:30 P.M. M Th LIB 419 RETHLINGSHAFER, D.

A detailed account of the factors underlying human motivation approached from both the psysiological and psychological viewpoints.

PSY. 699.—Research and Master's Thesis. 0 to 6 credits.*
To arrange

PSY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*
To arrange

REAL ESTATE

RE. 291.—Real Estate Fundamentals. 3 credits.
8:10 A.M. MAT 105 MC GOUGH, B. C.

A survey of the principles and practices essential to successful ownership of real property. The aim is to develop a full understanding of the significance of realty as a commodity and to equip the student with the fundamentals essential to successful real estate investment and enterprise. Classroom lectures and problems place emphasis on the legal, economic and technical aspects of real estate ownership and provide background training for those seeking specialization in the fields of real estate law, brokerage, management, appraising and real estate finance. Not open to students with 4BA classification.

*Credit assigned must be shown on course assignment card.

RE. 295.—Housing and Home Ownership. 3 credits.
9:20 A.M. MAT 105 MC GOUGH, B. C.

Concerned with the consumption of real estate and the economic, legal and technical aspects of housing from the point of view of the home owner. Stress is laid on the evolution and limitations of property rights, the role of government in the field of housing, principles of home ownership, home construction, and design, and the vital problem of when and how to buy a home. Not open to students with 4BA classification.

RE. 493.—Real Estate Law. 3 credits.
10:30 A. M. MAT 105 UNGER, M. A.

Necessity of learning when to consult a lawyer; fixtures; easements; land descriptions, land titles and interest; deeds; mortgages; foreclosures; landlord and tenant; taxes and assessments; avoidance of "unauthorized practice of law."

RE. 699.—Research and Master's Thesis. 0-6 credits.*
To arrange

REHABILITATION COUNSELING

RC. 641.—Psychological and Sociological Aspects of Rehabilitation Counseling. 3 credits.
8:10 Daily MSB M-401 BARRETT, A. M.

Study of social and personal problems of the handicapped; psychological aspects of physical and mental disabilities.

RC. 644.—Internship in Rehabilitation Counseling. 6 credits. Prerequisite: 24 hours of course work and permission of instructor.
To arrange THC A-81 THOMASON, B., BARRETT, A. M.

Supervised practice in counseling, case studies, contacts with community social agencies and others, as well as practicum in specific rehabilitation processes.

RELIGION

RN. 251.—Comparative Religion. 3 credits.
10:30 Daily I 204 SCUDDER, D. L.

RN. 342.—The Career and Significance of Jesus. 3 credits.
9:20 Daily I 204 CREEL, A. B.

RN. 430.—Individual Work. 3 credits.
To arrange.

SCHOOL ART

SCA. 301.—Creative School Art. 3 credits.
12:50-3:00 M W F NRN 113 BERG, C.

Study and practice in types of creative art work suitable for children of different age levels. Emphasis will be on painting.

SCA. 334.—School Art Design. 3 credits.
Section 1 12:50-3:00 M W F NRN 105 FARRIS, M. L.

To help teachers understand design in art work of children; crafts and graphics.

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*Credit assigned must be shown on course assignment card.

SOCIAL STUDIES

SCL. 301.—Social Studies in the Elementary School. 3 credits.
9:20 Daily NRN 222 AMBROSE, E.

Study of the selection, organization, planning, developing, and evaluating of experiences which help children become better citizens in a democracy. Exploration of the role of social studies and of other opportunities in the school curriculum for developing needed social learnings. Study of materials.

SOCIOLOGY

SY. 201.—Sociological Foundations of Modern Life. 3 credits. Prerequisite: C-11 or equivalent.
8:10 Daily PEA 308 ROBBINS, C. L.

Culture and its relations to specific social problems. The social institutions of American life today in relation to population changes, ethnic groups, and major problems of social policy. The social consequences of technological change. Techniques of social control in the metropolitan world.

SY. 244.—Marriage and the Family. 3 credits. Prerequisite: C-11 or equivalent.
11:40 Daily PEA 308 EHRMANN, W. W.

Forms of marriage and the family. Sex developmental differentiations. Sex education. Social relationships between men and women. Preparation for marriage. Legal and social factors affecting marital adjustment.

SY. 343.—The American Negro. 3 credits. Prerequisite: SY. 201.
10:30 Daily PEA 309 ROBBINS, C. L.

Major aspects of racial problems in the United States. The cultural development of the American Negro. Patterns and problems of interracial adjustment today.

SY. 348.—Community Organization. 3 credits. Prerequisite: SY. 201.
9:20 Daily PEA 309 ATCHLEY, M. H.

A study of community structures, activities, problems, and resources. Special attention will be devoted to the problems of community organization in Florida and the Southeast.

SY. 525.—Juvenile Delinquency. 3 credits. Prerequisite: 6 hours of Sociology, including SY. 201.
11:40 Daily PEA 309 ATCHLEY, M. H.

Social determinants of delinquency. Methods of detention, probation and parole, court administration. Designed for teachers, social workers, and others concerned with the practical problems of delinquency.

SY. 530—Individual Work. 3 credits. Prerequisite: 12 hours of Sociology, including SY. 201.
To arrange

Designed to permit advanced students to do work in subjects not available to them in currently offered courses.

SY. 545.—The American Family. 3 credits. Prerequisite: 6 hours of Sociology, including SY. 201.
8:10 Daily PEA 309 EHRMANN, W. W.

The cultural configuration of the American family. Basic relationships will be examined in terms of theoretical, historical, and clinical considerations.

SY. 630.—Individual Work. 3 credits.
To arrange

Designed to permit graduate students to do work in subjects not available to them in currently offered courses.

SY. 699.—Research and Master's Thesis. 0 to 6 credits.*

SY. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*

SOILS

SLS. 310.—Soils. 4 credits. Prerequisite: CY. 215.
9:20 M T W Th F MCC 133
Laboratory 3:10-5:20 M W

The nature and properties of soils. A treatment of the fundamentals of soil science including genesis, morphology, classification, chemistry, biology, physics and moisture relationships.

GRADUATE COURSES

SLS. 605.—Laboratory Methods of Soil Fertility Investigations. 3 credits. Prerequisites: SLS. 402 and CY. 331.
To arrange MCC 220

Analytical procedures required in study of soils, from the standpoint of fertility, availability of nutrients for crop growth, reaction of soils with fertilizers and other soil amendments and biological assay of soils.

SLS. 670—Non-Thesis Research in Soils. 1 to 6 credits.*
To arrange MCC 220

SLS. 699.—Research and Master's Thesis. 0 to 6 credits.*

SLS. 799.—Research and Doctoral Dissertation. 1 to 6 credits.*

SPANISH

SH. 134.—First-Year Spanish. 3 credits. Prerequisite: SH. 133, or equivalent.
7:00 M T W Th AND 18 PASTOR, D.
Laboratory: 8:10 Daily AND 11

SH. 201.—Second-Year Spanish. 3 credits. Prerequisite: SH. 134, or the equivalent.
8:10 M T W Th AND 18 LASLEY, M. M.
Laboratory: 9:20 Daily AND 11

SH. 202.—Second-Year Spanish. 3 credits. Prerequisite: SH 201, or the equivalent.
12:50 M T W Th AND 18 FIORE, S.
Laboratory: 11:40 Daily AND 11

SH. 599.—Special Study in Spanish. 3 credits. Prerequisite: SH. 305-306 and SH. 307-308, or the equivalents.
To arrange AND 7 LASLEY, M. M.

SH. 630.—Individual Work. 3 credits.
To arrange AND 7 LASLEY, M. M.

SH. 699.—Research and Master's Thesis. 0-6 credits.*
To arrange AND 3-B

SH. 799.—Research and Doctoral Dissertation. 1-6 credits.*

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*Credit assigned must be shown on course assignment card.

SPEECH

SCH. 201.—Effective Speaking. 3 credits.
(Register for one section only.)
Section 1 8:10 Daily ADM 239 CONSTANS, H. P.
Section 2 9:20 Daily ADM 239 CONSTANS, H. P.

Designed to aid the student through demonstration and practice to speak effectively to a group.

SCH. 314.—Types of Public Discussion. 3 credits. Prerequisite: SCH. 201.
10:30 Daily ADM 331 EHNINGER, D. W.

Study and practice in the principles and methods of group discussion. Special attention given to problem-solving and conflict resolution.

SCH. 317.—Correction of Speech Defects. 3 credits. Prerequisite: SCH. 201.
11:40 Daily ADM 331 TEW, R. E.

A beginning course in the recognition of common defects of articulation, dialect, nasality, observation in the clinic.

SCH. 419.—Introduction to Audiology. 3 credits. Prerequisite or corequisite: SCH. 410.
9:20 Daily ADM 331 TEW, R. E.

An introduction to the field of Audiology: disorders of hearing; relationship of hearing to normal speech development; hearing conservation; practice in pure-tone audiometry.

SCH. 481.—The Teaching of Speech in Secondary Schools. Prerequisite: 8 hours of Speech. 3 credits.
8:10 Daily ADM 331 ZIMMERMAN, L. L.

Practical philosophy of speech education as it functions at the secondary school level; methods of training in speech arts.

GRADUATE COURSES

Prerequisite: A student must have an undergraduate major in speech or its equivalent. The courses listed below may be taken to complement or fulfill the course requirements for the M. A. and Ph. D. degrees.

SCH. 602.—Plays, Players, and Playwrights. 3 credits.
11:40 Daily ADM 239 ZIMMERMAN, L. L.

A study of recent plays primarily from the point of view of production; the techniques of outstanding actors and playwrights.

SCH. 607.—Ancient and Medieval Rhetoric. 3 credits.
12:50 Daily ADM. 239 EHNINGER, D. W.

The history of rhetorical theory; a study of selected great works of outstanding classical writers who have influenced rhetorical thought, criticism, speaking, and writing.

SCH. 619.—Seminar in Speech Pathology II. 3 credits. Prerequisite or corequisite: SCH. 422.
10:30 Daily ADM 239 BUCK, M. W.

Speech and hearing involvement related to cleft palate disorders, laryngectomees, and neutrological and physiological pathologies of oral communication. Observation and practice in the Speech and Hearing Clinic and the Health Center.

SCH. 621.—Clinical Practice. 3 credits.
2:00-4:10 Daily ADM 331

Clinical practice with functional, or repaired organic, speech and hearing problems; clinical methods in diagnosis, observation, practice in inter-professional evaluations in the Speech and Hearing Clinic and the Health Center. May be repeated with change of content.

SCH. 699.—Research and Master's Thesis. 0 to 6 credits.*

SCH. 799.—Research and Doctoral Dissertation. 1 to 12 credits.*

VEGETABLE CROPS

VC. 499.—Special Problems in Vegetable Crops. 1 to 3 credits per semester. Maximum 6 credits.*
Section 1 To arrange JAMISON, F. S.

GRADUATE COURSES

VC. 670.—Non-thesis Research in Vegetable Crops. 1 to 3 credits per semester. Maximum 6 credits.*
To arrange JAMISON, F. S.

VC. 699.—Research and Master's Thesis. 0-6 credits.*
To arrange JAMISON, F. S.

VC. 799.—Research and Doctoral Dissertation. 1-6 credits.*
To arrange JAMISON, F. S.

VETERINARY SCIENCE

VY. 545.—Problems in Animal Parasitology. 4 to 8 credits.* Approved for Graduate credit. Prerequisites: BLY. 161, 162, 208, 209, and BCY. 300.
To arrange.

VY. 643.—Problems in Animal Pathology. 4 to 8 credits.* Prerequisite: Consent of instructor.
To arrange.

VY. 644.—Problems in Veterinary Hematology. 4 to 8 credits.* Consent of instructor.
To arrange.

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*Credit assigned must be shown on course assignment card.

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